



Mapping the Urban Database Documentary: Authorial Agency in Utopias of Kaleidoscopic Perception and Sensory Estrangement

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Mapping the Urban Database Documentary:
Authorial Agency in
Utopias of Kaleidoscopic Perception and Sensory Estrangement

A dissertation presented
By

Jesse Shapins

To

The committee on
Architecture, Landscape Architecture, and Urban Planning

in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy
in the subject of

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Professor K. Michael Hays

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Mapping the Urban Database Documentary:
Authorial Agency in Utopias of Kaleidoscopic Perception and Sensory Estrangement

Abstract

This dissertation theorizes the genre of the urban database documentary, a mode of media art practice that uses structural systems to uncover new perspectives on the lived experience of place. While particularly prominent in recent decades, I argue that the genre of the urban database documentary arises at the turn of the 20th century in response to the rise of the metropolis and the widespread adoption of new media technologies such as photography, cinema, and radio. This was a time when the modern city engendered significant disorientation in its inhabitants, dramatically expanding horizontally and vertically. The rampant pace of technological development at this time also spawned feelings of dehumanization and the loss of connection to embodied experience. The urban database documentary emerges as a symptomatic response to the period's new cultural conditions, meeting a collective need to create order from vast quantities of information and re-frame perception of daily experience. The design of structural systems became a creative method for simultaneously addressing these vast new quantities of information, while attending to the particularities of individual experience. For media artists, building a database into the aesthetic design of a work itself offers an avenue for creatively documenting the radical multiplicity of urbanized environments, preserving attention to the sensory experience of details while aspiring to a legible whole. Crucially, I argue that the design of these systems is a vital form of authorial agency. By reading these artists' work in relation to contemporary practice, I aim to make transparent the underlying, non-technical ambitions that fuel this distinctive mode of media art practice.

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Acknowledgements

This work is a reflection of over a decade of intimate collaboration with many dear friends. It's hard to pinpoint when I first started thinking about issues that would become the urban database documentary, but I know there were many immense fertile conversations in college while living with lifelong friends Christopher Allen, Brian House and Justin Wall. My undergraduate thesis advisors — Andreas Huyssen, Sudhir Venkatesh and Joeb Moore — were also instrumental. Following college, these ideas gestated while living and working in Berlin. There, I had the incredibly good fortune of working with Philip Schwarz and Celia Di Pauli on *The Colors of Berlin*, my earliest foray into database design.

When I moved back to New York in 2004, I began working on *Yellow Arrow*, re-connecting with Christopher and Brian, and joining up with Michael Counts, Howard Pyle, Jonathan Stern and many others. It was during this time that I also first met Christina Ray and Mark Shepard, two colleagues whose work in locative media has played a vital role in my own practice. And it was during *Yellow Arrow* that I also first started working with Kara Oehler, now my life partner, long-time creative collaborator and a voice throughout all of these pages. At the same time as *Yellow Arrow*, Christopher and I started UnionDocs, a center for documentary arts in Brooklyn that has been a vital source of documentary discourse and practice. Over the years, late night conversations with Johanna Linsley, Hilke Schellman, Katrina Grigg-Saito, Steve Holmgren, Thomas Zummer and the many participants in the collaborative program directly influenced my thinking.

I moved to Cambridge in 2007 to begin a Ph.D. I attended the GSD to work with Margaret Crawford, and our early dialogues on everyday urbanism and imagination are braided

into these pages. During my first year, Susan Fainstein shared incredible insights while I began exploring these topics; Eve Blau's course on Transparency led to the original research on Janet Cardiff; and Peter Gordon's course on Weimar Intellectuals provided a perfect environment for critically examining Walter Ruttmann's work and *Weekend*. That first year, I also was exceptionally fortunate that Yuri Tsivian was teaching a course on Dziga Vertov, the context in which I first learned about *Moscow* and the breadth of Vertov's work. And, remarkably, Scott Macdonald was visiting that year, as well, and we shared many crucial dialogues on city symphonies.

The PhD program at the GSD is uniquely interdisciplinary, and this incredible diversity of peers has been vital. I am grateful for the many dialogues shared with all of my colleagues at the GSD and related departments, especially Ivan Rupnik, Brian Goldstein, Olga Touloumi, Lara Belkind, Joe Bender, Maxim Pozdorovkin, Jeremy Blatter, Dan Borelli, Mariana Mogilevich, Jennifer Mack and Hugo Van Vuuren.

Pedagogical experiments were a crucial domain for developing elements of this dissertation. I am incredibly grateful to Laura Kurgan, who gave Brian House and I the remarkable freedom to invent the course Critical Urban Media Arts at Columbia in 2008. That course — a hybrid seminar and studio, that combined research in urban theory with media art practice — proved a format that modeled my dissertation research itself.

As I began to fully develop my dissertation, I started to work with an incredible group of advisors. Antoine Picon was so generous in serving as my primary advisor, shepherding what was once a myriad collection of fragmented thoughts into a (hopefully) coherent argument. I am so grateful he took me on as a student and was constantly moved by how deeply he engaged the project. Michael Hays constantly pushed me to take risks and imagine my own theoretical

structure, encouraging me to thoughtfully meander outside of conventional formats. I can still vividly picture the conversation when the seeds of the symptomatic argument that underlies the dissertation were planted. Svetlana Boym and I first started talking about the surprising intersections of art, media and the city before I even moved to Cambridge. I am thankful to her for so much, but possibly more than anything, I must thank her for introducing me to Viktor Shklovsky and the term estrangement, a character and a concept with whom I am now lifelong friends. For anyone that knows Giuliana Bruno's writing, much of what follows will be no surprise, as her own groundbreaking work in connecting media and architecture deeply underlies this history, and her creative approach to theory inspired me at every stage. I can still vividly remember first reading *Atlas of Emotion* and feeling chills that I was lucky enough to be able to speak in person with the mind behind the text. Truly, I cannot express enough my gratitude to Antoine, Michael, Svetlana and Giuliana. Together, they were the perfect mixture of intellectual insight and experimental disposition, challenging (and permitting) me to constantly follow my passion.

While the GSD was my primary institutional home at Harvard, the extended University community indelibly shaped this work. Lucien Castaing-Taylor and Ernst Karel at the Sensory Ethnography Lab and Film Study Center have been truly remarkable mentors and colleagues. They supported Media Archaeology of Boston, an adventure in database documentary which lead to Media Archaeology of Place, a course we co-taught and in which many of the initial ideas in this dissertation were first animated. It was through the SEL and FSC that I also first connected with Julia Yezbick and Joana Pimenta, key collaborators at *Sensate* journal, an experiment in multimedia publishing that inspired me to pursue reflections on my own media practice in the final chapter. And it was also Lucien and Ernst that connected me to Peter

Galison, whose leadership in establishing the Secondary Field in Critical Media Practice was essential for enabling me to break down the barrier between my artistic practice and my scholarly research. I feel so grateful to have been at Harvard at this unique moment in time, encountering this incredible community of thinkers *and makers* to whom I am eternally indebted for shaping the ways I think about the potential of the academy.

When I was not at the GSD or in Sever Hall, I was at a wonderful tiny yellow house on Everett Street – the Berkman Center for Internet and Society. When I moved to Cambridge, I had no idea the center existed. Honestly, I could not have possibly dreamt of a more remarkable community of people around the planet with whom to share dialogue about the past, present and future of the web. All I can say is thank you Benjamin Walker and Jake Shapiro for inviting Kara and I to the Berkman @10 celebration and introducing me to Colin Maclay, whose generosity and insight into every facet of this intellectual and creative journey is beyond description. That fateful day on Charlie's lawn was the first encounter with the Berkman ethos of not only critically reflecting on the web as a vital social, political and cultural medium, but also actively inventing new tools and fostering discourse in the networked public sphere. And it was this ethos that first enabled James Burns, Kara and I to work together. Colin awarded us a grant for Mapping Main Street, standing behind a quirky original proposal that interwove quotations from Bruno Latour with a proposition to travel across the country driven by the database of all streets named Main Street. In addition to Colin, I am deeply grateful to Becca, Amar, Christopher, Andy, Jeff, Seth, Dalia, Urs, Rob, Caroline, Sebastian and so many others in the Berkman family that I was fortunate enough to work with.

It was also at the Berkman Center that I first met Jeffrey Schnapp, a dear friend whose incredible work in the digital humanities provided an ideal armature for expanding beyond

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In the final phase of writing — after I had completed a first draft of each chapter — I had the great fortune of meeting William Uricchio. I was invited to speak at MIT's new OpenDocLab and after my presentation, it was apparent that William and I shared a remarkable number of intellectual and creative affinities. Despite being on leave, he generously read the entire draft over the summer, providing crucial feedback that propelled me into this final version.

While in school, I lived in Somerville, Cambridge, New York and San Francisco. For me, Cambridge will always be deeply attached to my dear friends Thatcher Tiffany and Lily Pollans — while I was constantly uprooted, they always provided physical and spiritual home. I am also deeply grateful to Lily for reading and commenting upon the final full draft. For me, Cambridge will also always be associated with Seth Pipkin and Ian Gray, dear friends who regularly critiqued the ideas herein.

I have known James Burns possibly longer than anyone besides my parents. We shared lockers in 6th grade and then hacked together our own newspaper from a database of graphic design iconography in 8th grade, getting suspended for distributing independent media on the

campuses of Boulder Valley Public Schools. That was the last time we were in school together, until remarkably, James and I ended up doing PhDs at the same time. From providing a couch when I first started exploring Cambridge to the final comments over beer at Bukowskis, James's spirit and thought is imbued throughout this project (and each of its subprojects). I feel so grateful that my best friend from 6th grade remains my best friend and as adults we've been able to continue the experiments we gestured towards 20 years ago.

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Prologue

This project began almost exactly 12 years ago. Sitting in a dark classroom, I encountered Walter Ruttmann's 1927 film *Berlin: Symphony of a Great City* for the first time. Flashing before me on the screen was a mode of media art practice that I had never been aware of before. I didn't know what to call it. At the time, I basically described it to myself as something like, "crazy, wild, experimental combinations of image and sound that evoked the experience of being in a city." I had seen a lot of films set in cities, but these were often classically narrative affairs. I'm probably not supposed to admit such things in academic settings, but as a teenage basketball player and aspiring poet, *The Basketball Diaries* and the real-life figure of Jim Carroll had until then embodied the intersection of media, art and the city for me.

Ruttmann's film was clearly distinct. Not only because it didn't star Leonardo DiCaprio. The symphony *had characters*, but they were not named. There *was* a story, but it was more abstract — I sensed that the *form* of the film itself, a trajectory from morning to night, was a story of the city as a whole, the city itself performing as a bold character, a figure constantly morphing through individual and collective action. This structural approach to creatively balancing an aspiration towards a comprehensive view while retaining the integrity of fragments deeply resonated with me. And I could sense that the structure itself was generative for the filmmaking process itself — there was no script, but there was a framework. I was someone who had not always lived and breathed urbanism, a transplant to New York from the small town of Boulder, Colorado. So I knew intuitively that there was something radically different about the experience of being in a congested environment. Sitting in that classroom, I was deeply moved to

experience first-hand how powerful media itself could be in stimulating such a cerebral and sensorial experience — to approximate the embodied feeling of being in a different time and place. In the context of this project, this same dynamic manifests in the notion of kaleidoscopic perception.

In the same period of months, I first encountered the Center for Land Use Interpretation's work. Surfing the web, I found the organization's site which described an entity "Dedicated to increasing the diffusion of information about how the world's lands are apportioned, utilized and perceived." Hard to place between an arts group and a government agency, the site also had "land use database." There was a map with different states and the option to search by keyword. The early version of the database included some images which are now presented on the group's Morgan Cowles Archive, a collection which includes photo albums each corresponding to a tag/title. The list of album names is a form of poetry. "Blank Plaques" includes images from across the country showing overlooks and landmarks where a plaque has been erected but no longer carries information. "Sentiments" are instances of where emotional words are displayed in public, such as "Trust" in LED lights at "The World's Largest Truckstop." Or another highlight is a sign that reads "Put something concrete in your life" advertising a concrete manufacturer. What struck me is that at the core of CLUI's work was the transformation of perception. Their aim was a transformation that is both personal for the viewer and artist, but also social, refracting public topics to create new spaces for dialogue. For me, this is the notion of sensory estrangement.

The class in which I was watching the film was Andreas Huyssen's "Introduction to Comparative Literature." Weeks before, I had first been exposed to Derrida, along with Barthes's

“Death of the Author.” So...the notion of authorship was swirling in my head. And while the arguments of the two French critics were intriguing, seeing Ruttmann’s film and CLUI’s work made me question the notion of so thoroughly dismissing authorship in favor of the reader or an ever-extending textuality. To me, Ruttmann was an artist, a maker. And even though CLUI was masked behind a group identity and the work foregrounded a technical database, it was clear to me there was a very strong human hand in crafting this identity and designing the parameters of the collection and its contents. And this craft mattered to me. Of course, my particular response to the film and CLUI’s site was only strong evidence that the reader had significant agency, but I didn’t feel comfortable denying that Ruttmann or CLUI’s particular histories of aesthetic inquiries and their motivations for their project had not impacted my own interpretations. Hence, the nascent sense of the final pillar of this dissertation’s argument – the continued significance of authorship and agency in media art practice.

After encountering these two works, I began myself to photograph New York and other cities. I looked to use the device of the camera to both create a context to expand my perceptual experience and to capture a sense of being-in-the-city that would hopefully open up new avenues of sensation for others. After the floodgates opened by that initial encounter with Ruttmann, I discovered the writings of Walter Benjamin and Siegfried Kracauer, and later the films of Wim Wenders. I then visited Berlin the next summer. I completely fell in love with the city, a city radically transformed since Ruttmann’s recordings. When it came time two years later to write a thesis, to make sense of my readings, viewings and own artistic practice, I created my own definition of the “critical flaneur” and “excavated the Mauerpark, “performing a landscape archaeology of a Berlin open space.” In fulfillment of a joint degree in Architecture and Comp.

Lit., my final thesis proposed a research method that interpreted five aspects of this Berlin park as typologies, using each as anchors to more broadly theorize a cultural history of Berlin and experiment with new modes of urban research and representation. My own photography provided a vital tool for articulating and investigating these research questions.

So, this PhD thesis has an ancestry, as it is a part of an ongoing scholarly and artistic investigation of how media shape urban experience and how we may shape urban experience through media.

When I applied to the Graduate School of Design in 2007, these same core ambitions undergird my statement of purpose. I opened with the question: “*If a city is not just buildings, what is it?*” For me, this apparently simple question was the genesis of my passion for the field of urbanism. I wrote, “The whole of the city — its refuse and its glory — is a revealing laboratory of the human experiment. It is the densest concentration of human construction and cohabitation, both literally as physical form and conceptually as imaginary territory. Urban space is where much of humanity’s social, political, economic and cultural life is produced and contested. Analyzing and participating in the lived experience of this dialectical production and contestation is what inspires me to pursue a Ph. D. at the Harvard GSD. Specifically, I intend to research theories and practices of urban representation, engagement and media in globalizing cities. My academic work will be focused on developing urban cultural theory and refining methodologies of urban research.”

It’s worth noting the focus on the notion of the *imaginary* and its relation to lived experience, as well as the terms *representation and media*. All key terms in my dissertation. Moreover, from the beginning, it’s evident that I’ve understood myself to be experimenting in

the development of theory. Of course, this theoretical work is grounded in history, but I make no claims to be a traditional historian. I get excited about how inventing theory can generate new modes of looking at historical periods and artifacts, as well as mobilizing new perspectives on contemporary conditions.

Looking back, there is one thing that is conspicuously absent from my original statement of purpose that is a major part of this final dissertation. THE INTERNET! In many ways, I would now describe this dissertation as an adventure in trying to develop an alternative methodology for researching web-native cultural practice related to the city. But central to my project is the argument that the invention of the computer and the Internet did not give rise to the urban database documentary, it only enabled new forms of its realization. I believe this perspective is important today as we grapple with continued media, urban and social transformation. By reading these artists' of the early 20th century avant-garde in relation to contemporary practice, I aim to make transparent the underlying, non-technical ambitions that fuel this distinctive mode of media art practice.

This is another reason for the terms “authorial agency” in my title. Today’s media culture is dominated by the notion that suddenly everyone can be an author, a filmmaker, an artist, etc. It is the great age of creative populism. Repeated ad infinitum is the fear that the professional’s province of authorial expertise is a thing of the past. The adage goes that the journalist of the future is anyone who blogs or tweets, and the only role for a professional is as a curator. There is no longer need for “original content.” The filmmaker of the future is anyone who has a cell phone and posts their videos to YouTube. Everyone can take beautiful photos with Instagram. There is such a thing as a “hive mind” and its glorious manifestation is the networked knowledge

of Wikipedia.

What I find missing in all of this discussion is attention to the rise of new forms of authorship, the authorship of frameworks, rule sets — i.e. database structures that are the generative backbones of many creative works. The revolution in authorship today is not so black and white. Wikipedia is not a simple, anarchic, level playing field. It is highly structured, rigorously curated and edited. It is intensely collaborative and radically open in comparison to knowledge production models of the past, but there is fundamentally hierarchy. While it is true that more people than ever have the ability to express themselves through media and make their work accessible to millions through the web, this expression always takes place within authored constraints. A photo on Facebook is never just a photo — it is necessarily that photo enmeshed within the logic of the Facebook platform, a living, breathing, data-driven behemoth that graphs any instance of social interaction in relation to others across the network. And Facebook and other platforms are made by people, inflected with very specific social, political and aesthetic visions. Moreover, the history of artists authoring frameworks is not exclusive to recent decades. Since at least the early 20th century, a central concern of a mode of media art practice has been the design of aesthetic structures, such as the temporal, topical and multisensorial dynamics of city symphony films like Ruttmann's and other urban database documentary works.

While Dziga Vertov did not have access to a medium like the web, he was well aware of the significance such a moment might hold. The reflective thread of *Man with a Movie Camera*, the methodical uncovering of the processes and artifice behind the new medium of film, had a clear political purpose: instead of simply producing propaganda that communicated the party

line, Vertov went a step further. He aimed to inspire a critical subjectivity and agency in his ideal new Soviet subject. By exposing authorship, Vertov empowers greater agency.

To get at all these issues, methodologically, I have chosen to structure my argument around the theorization of a new genre, the urban database documentary. To be clear, this is not a genre that “existed” before. I invented it for the sake of this argument, in part, because the urban database documentary genre as I have theorized it offers a uniquely potent venue for arguing against a techno-determinist model of media art history and witnessing historical shifts in authorial agency. A genre is, of course, ultimately a semi-arbitrary approach to establishing boundaries, of demarcating edges that can always be scrutinized. It is an artificial means of categorization, and no work ever sufficiently qualifies (and conversely, no work can be sufficiently disqualified). But it is precisely this speculative quality that enables the question of genre to shape discourse that can be attentive to both form and content, that can traverse media and move across time and space.

Introduction

Mapping the Urban Database Documentary

This dissertation theorizes the genre of the urban database documentary, a mode of media art practice that uses structural systems to uncover new perspectives on the lived experience of place. While particularly prominent in recent decades, I argue that the genre of the urban database documentary arises at the turn of the 20th century in response to the rise of the metropolis and the widespread adoption of new media technologies such as photography, cinema, and radio. This was a time when the modern city engendered significant disorientation in its inhabitants, dramatically expanding horizontally and vertically. The rampant pace of technological development at this time also spawned feelings of dehumanization and the loss of connection to embodied experience. The urban database documentary emerges as a symptomatic response to the period's new cultural conditions, meeting a collective need to create order from vast quantities of information and re-frame perception of daily experience.

In the midst of all this, society had the ability for the first time ever to mechanically record on a grand scale audio-visual impressions of these changes to everyday life. The design of structural systems became a creative method for simultaneously addressing these vast new quantities of information, while attending to the particularities of individual experience. The database quality of the genre is legible first and foremost in the creative method of the artist. For me, a database is a structural system and conceptual architecture, and in the projects I discuss, the construction of a database becomes the generative logic for the work itself. For media artists, building a database into the aesthetic design of a work itself offers an avenue for creatively documenting the radical multiplicity of urbanized environments, preserving attention to the sensory experience of details while aspiring to a legible whole.

Crucially, I argue that the design of these systems is a vital form of authorial agency. Already in the early periods of modernity, we witnessed a rapid rise in artists designing dynamic systems that set constraints while enabling diverse modes of participation and experience. By reading these artists' work in relation to contemporary practice, I aim to make transparent the underlying, non-technical ambitions that fuel this distinctive mode of media art practice.

So, what are these non-technical ambitions and from where do they arise? The urban database documentary can be read as symptomatic of kaleidoscopic perception and sensory estrangement, cultural utopias which respond to modernity's underlying paradoxes. Kaleidoscopic perception is the desire to present a portrait of a city as a totality while retaining the representation of its fragments. Sensory estrangement is the desire to use artistic mediation to foster defamiliarization, generating heightened awareness, new forms of sensory experience and new public venues for addressing ambiguity. Kaleidoscopic perception most poignantly responds to the modern city's radically new scale, while sensory estrangement challenges a perceived numbing of the sensorium due to overwhelming technological development.

I use the word utopia to describe these impulses because they aspire to modes of being that are inherently impossible to fully achieve, but the pursuit of which actively re-shapes reality. Utopia then is necessarily projective — utopian imagination is both aspirational and material, informing the ways individual and collectivities concretely act. Everyone, whether they know it or not, participates in utopian desire, and these desires are symptomatic of modernity's underlying dynamics. Modernity produces painful paradoxes, conditions of existence that engender a constant search for resolution, resolution never-to-be-found. One of these paradoxes is the bewildering scale and pace of complexification that engenders ever-greater desires for total understanding; another paradox is the increasing drive to use technical media themselves to

foster greater sensory experience, combating a perceived sense of technology's numbing of sensation. Kaleidoscopic perception and sensory estrangement are two utopias, two states of modern desire that respond to these paradoxes and drive works of urban database documentary. Urban database documentary works respond to the same core conditions of modernity and often engage both utopias, enfolding each into the other, but with different levels of emphasis. I do not question the merits of these utopian impulses, nor evaluate the success of different urban database documentaries in fulfilling such desires. Instead, I aim to expose how these utopian desires motivate this distinctive mode of media art practice. This is in contrast to today's dominant mode of interpretation, which privileges technological change as the primary driver.

Below is a diagram that describes the dynamics of these utopian desires. The circles at the center are modernity's central paradoxes to which the genre responds. The first illustration represents the trajectory of a work that follows an initial impulse towards kaleidoscopic perception. As the work's design evolves and the structural system of a database is constructed, the desire for fostering sensory estrangement is addressed and the final form of the work threads elements of both utopian desires together. The second diagram shows a similar sequence of processes for works that begin with an impulse towards sensory estrangement.

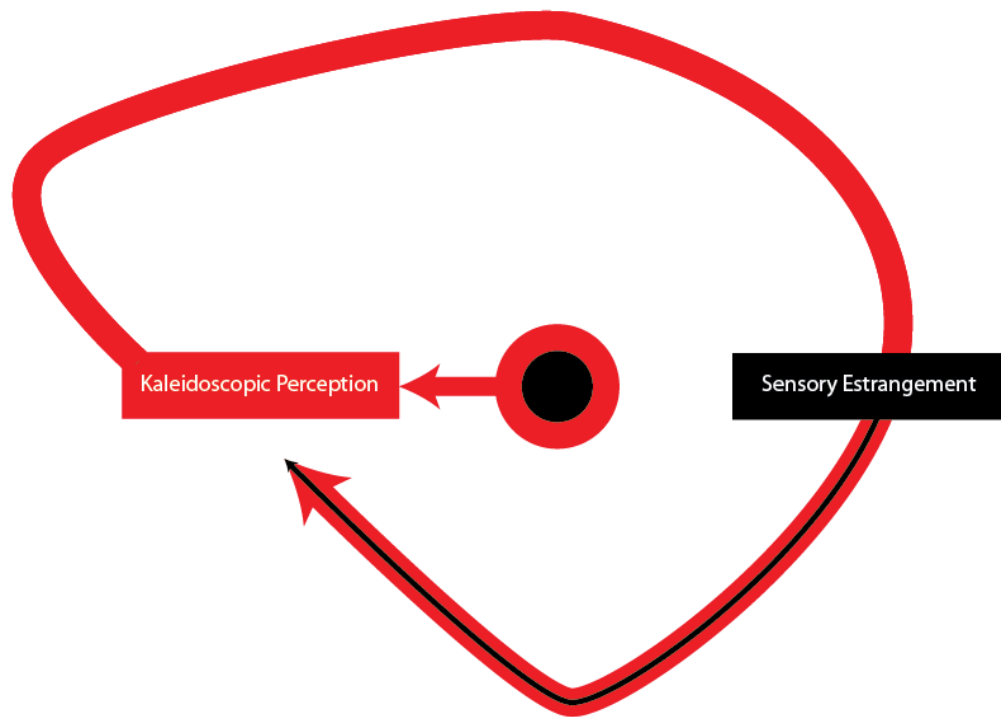


Figure 1a. Dynamics of a work emphasizing kaleidoscopic perception, encompassing sensory estrangement.

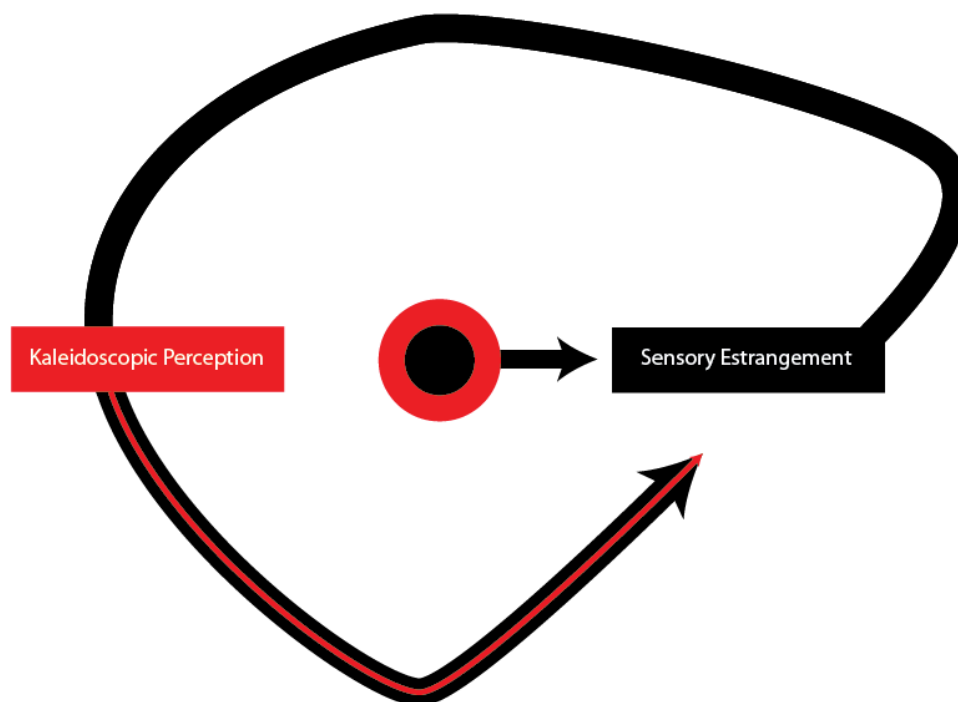


Figure 1b. Dynamics of a work emphasizing sensory estrangement, encompassing kaleidoscopic perception.

Let us peek at some early manifestations of the urban database documentary, incarnations before the invention of the computer. The “city symphony” is a term most commonly used to describe a series of avant-garde documentary films from the 1920s that strive to represent the totality of a cityscape through capturing the day-in-the-life of a modern metropolis. Formally, the city symphony is identified by 1) a temporal structure, where the film begins with morning and ends at night; 2) rapid montage as the dominant editing style; 3) shots of individuals and crowds caught unaware by a concealed camera; 4) and the treatment of a cityscape itself as the main character and actor as opposed to individual personalities.

The city symphony demonstrates an approach to recording the city as a database, and is deeply emblematic of the urban database documentary’s utopian drive to kaleidoscopic perception. The most canonical works emerged in sites of massive urban transformation, places where people’s perceptual matrices were most severely disoriented through processes of modernization, thus stoking the desire for generating new forms of kaleidoscopic perception.

One of the most famous examples of a city symphony is Dziga Vertov’s 1929 *Man with a Movie Camera*. Vertov’s 68-minute silent classic is comprised of rapid, rhythmic montage sequences of industrial labor, street crowds, communication technologies and other *ur*-motifs of modernity. The footage is largely observational. The film synthesizes material from multiple cities across the Soviet Union, documenting the new nation’s achievements in modernization and producing an image of a synthetic, unified Soviet urbanism. There are no main characters in the traditional narrative sense, but the film does begin with a classic scene of awakening, a young woman arising from bed, looking out the blinds of her window, whose rapid flickering transforms into the closing shutter of a camera. The metaphor is clear: the film proposes a new mode of seeing, the mechanical recording capability of the camera opening up new perspectives

on an individual's everyday life and the total Soviet experience. *Man with a Movie Camera* is an example of the first diagram, a work emphasizing kaleidoscopic perception that also enfold an impulse towards sensory estrangement.

The film also exposes the process of creating the documentary itself, weaving in footage of the recording, editing and projection of the film alongside documentation of the daily lives of urbanites in Moscow, Kiev and Odessa. The first part of the film shows an empty theater with a projectionist taking out a reel titled "Man with a Movie Camera;" we then see people come into the theater and begin watching the film, the main character of which is a literal man with a movie camera out in the world recording events; the rest of the film follows this cameraman (who happens to be Vertov's brother, Mikhail Kaufman), and also includes segments showing the film's editor, Elizaveta Svilova, selecting clips from the cameraman's reels, understood to be those selections that become the final film. This reflective layer is the literal expression of the underlying database. This aesthetic choice exposes the highly mediated processes by which documentaries are made and prompts audiences to re-configure the scenes in their minds themselves.

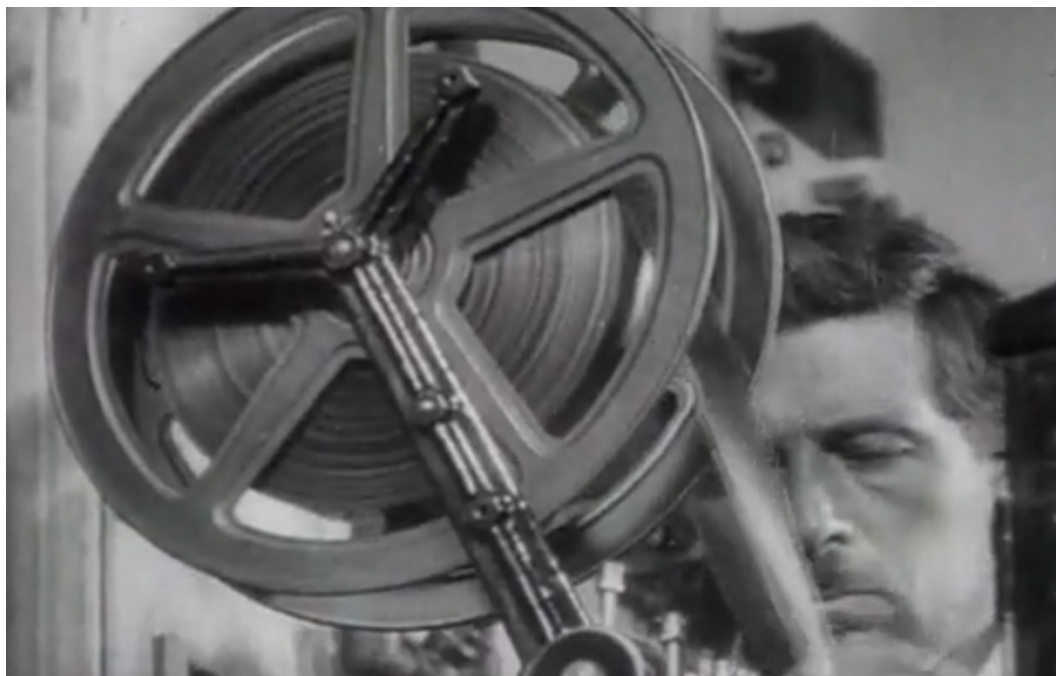


Figure 2a. Projectionist setting up Man with a Movie Camera



Figure 2b. Full theater watching Man with a Movie Camera



Figure 2c. Cameraman as character in Man with a Movie Camera



Figure 2d. Film reels for editing in Man with a Movie Camera

While the utopia of kaleidoscopic perception emphasizes the desire for totality, the utopia of sensory estrangement uses structural systems to foster new forms of attention to often-overlooked details. The Center for Land Use Interpretation (CLUI) is an arts organization founded in 1994, and their work is a unique articulation of urban database documentary practice engaged in the utopia of sensory estrangement. At the core of CLUI's work is the transformation of perception. Describing *Overlook*, a catalog documenting their work, CLUI founder Matthew Coolidge writes, "What matters is that after reading this book, or after encountering any of our programming elsewhere, you come away with a widened sense of awareness of the physical world that surrounds you."¹ While the database serves as a conceptual architecture in Vertov's film, a literal computerized database serves as the foundation for CLUI's work. Coolidge writes, "As we stumble over the obvious, we ask ourselves, 'What is that thing anyway, and how did it get there?' The results are compiled, sorted, processed, and stored in our Land Use Database."² The CLUI database, an ever-expanding repository, is the generative structure that drives the group's multiplicity of practices.

The CLUI database is vast, but not exhaustive. It is rigorously curated. The database is not a collection of everything, but rather a selection from everything. It is an inventory of examples. Its utility would be limited if it were unfiltered and exhaustive - too much information can be as obfuscating as too little. The best images within CLUI's land use database are showcased in their Morgan Cowles archive, an online environment for exploring the vast, eccentric nuggets of The Center's documentary recordings. The website has a very simple structure: there are 28 photo albums each corresponding to a tag/title. The list is a form of poetry. "Blank Plaques" includes

¹ *Overlook : Exploring the Internal Fringes of America with the Center for Land Use Interpretation*, edited by Matthew Coolidge and Sarah Simons, (New York: Metropolis Books, 2006): 15.

² *Ibid.*, 17.

images from across the country of overlooks and landmarks where a plaque has been erected but no longer carries information. “Sentiments” are instances of where emotional words are displayed in public, such as “Trust” in LED lights at “The World’s Largest Truckstop.” Or another highlight is a sign that reads “Put something concrete in your life” advertising a concrete manufacturer. Other categories include “Mounds and Piles,” “Mobile Home,” “Outsized,” “Inundation,” “Restrooms,” and “Viewing Devices,” all collections of media that aim to transform perception of often-overlooked features in the landscape. CLUI’s work is an example of the second diagram, a work emphasizing sensory estrangement that also enfold an impulse towards kaleidoscopic perception.

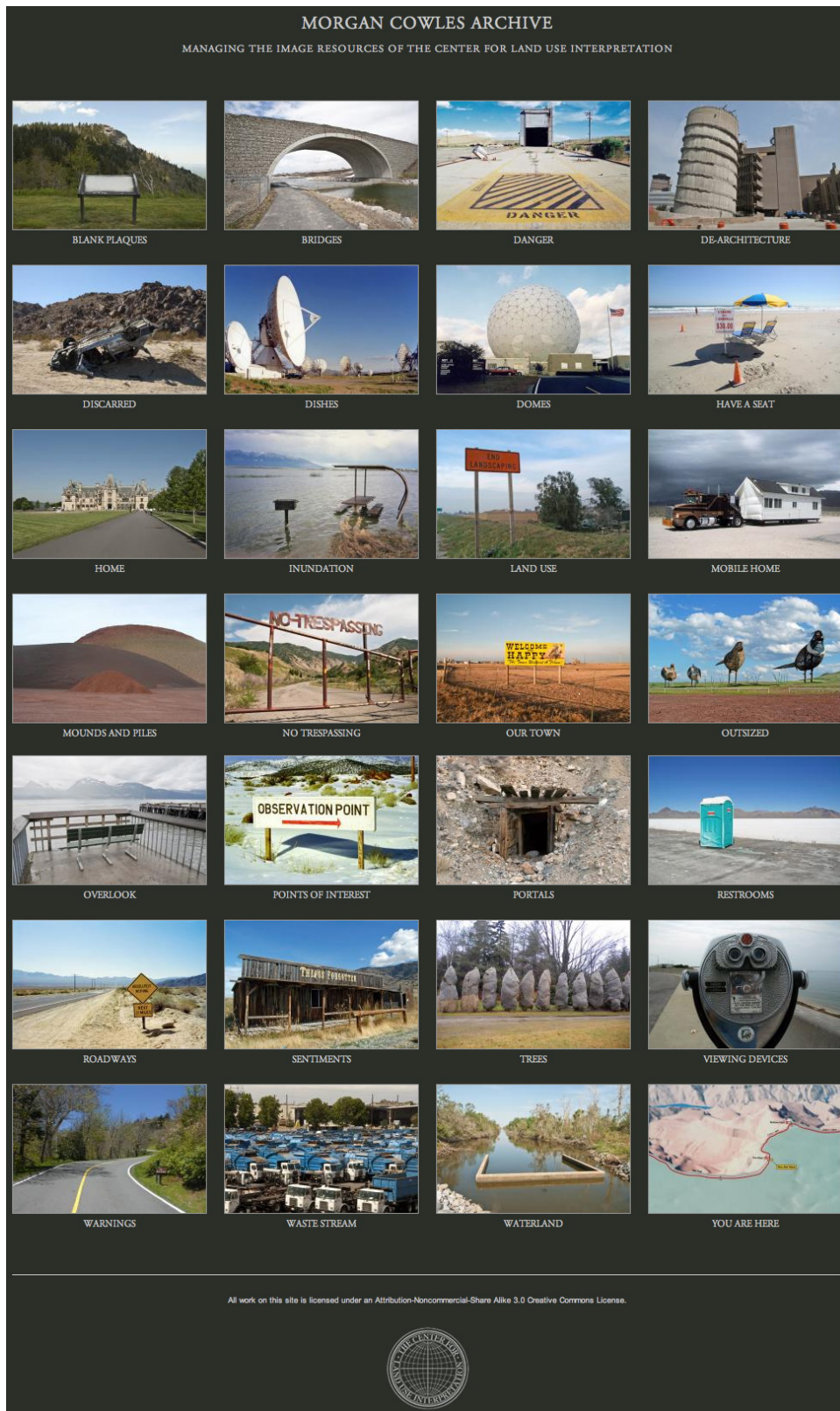


Figure 3a. General overview of CLUI's Morgan Cowles Archive

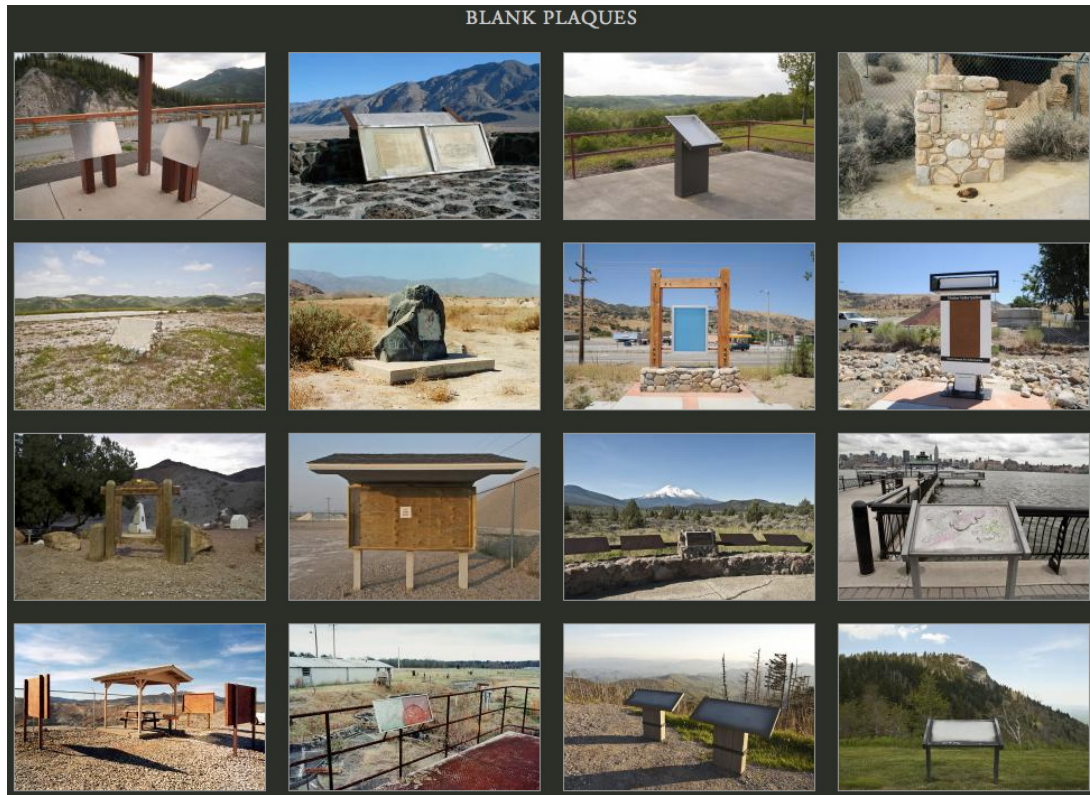


Figure 3b. "Blank Plaques" collection in CLUI's Morgan Cowles Archive



Figure 3c. From "Sentiments" collection in CLUI's Morgan Cowles Archive

As evidenced by these two examples, central to my project is a critique of a linear, techno-determinist reading of media art history. The invention of the computer did not give rise to the urban database documentary, it only enabled new forms of its realization. This perspective is important today as we grapple with continued media, urban and social transformation. In the context of media art practice, we often witness a fetishization of ever-new technological possibilities. Fueled by the buzz machine of publications such as *Wired*, the merit of works is often judged simply on whether or not they are using the most advanced technologies. My hope is to shift the conversation from a fetishization of the tools to a discussion of the underlying cultural aims/assumptions of media art practice and the specific forms through which works address modernity's cultural tensions.

One of the things that most bothers me today is the widespread belief that in the context of social media and the Internet, that there is no longer a need to discuss "authorship." Popular mythology sustains the idea that since everyone now ostensibly has the ability to record media and self-publish, that we no longer need to discuss quality, intent, agency. It is my contention that authorship is alive and well. It simply has taken on myriad new forms, many of which were already nascent in the early 20th century, including the authoring of databases that provide the generative framework for a work.

While Vertov did not have access to a medium like the web, a medium that has the potential for a democratization of authoring frameworks, he was well aware of the significance such a moment might hold. The reflective thread of *Man with a Movie Camera*, the methodical uncovering of the processes and artifice behind the new medium of film, had a clear political purpose: instead of simply producing propaganda that communicated the party line, Vertov went a step further, aiming to expose the makings of media in order to inspire a critical subjectivity

and agency in his ideal new Soviet subject. By exposing authorship, Vertov empowers greater agency. Today, this means attending to the authorial voices behind the most powerful platforms, fostering critical discourse about such topics as the aesthetic and cultural logic of Facebook's paradigm of interactive design or the biases constructed by human engineers that power Google's search algorithm. And of equal, if not greater importance, is a movement to enable more and more people to author their own platforms, on their own terms, in the aesthetic and social forms of their choice. Per Barthes, a new reader may have been birthed, an active agent not bound to the whims of the author. But the author today is far from dead, as the multiplicity of layers of authorship have expanded in dramatically new forms.

Methodologically, I have chosen to structure my argument around the theorization of a new genre, the urban database documentary. To be clear, this is not a genre that "existed" before. I invented it for the sake of this argument, in part, because the urban database documentary genre as I have theorized it offers a uniquely potent venue for witnessing historical shifts in authorial agency.

A genre is, of course, ultimately a semi-arbitrary approach to establishing boundaries, of demarcating edges that can always be scrutinized. It is an artificial means of categorization, and no work ever sufficiently qualifies (and conversely, no work can be sufficiently disqualified). But it is precisely this speculative quality that enables the question of genre to shape discourse that can be attentive to both form and content, that can traverse media and move across time. For example, it is this methodological strategy that allows works like Vertov's to be substantively in conversation with more recent web-based experiments such as CLUI's online archive.

Urban

In imagining a new genre, definitions are important. I choose the term “urban” to delimit the database documentary genre to works that engage questions of the experience of place and the production of space. For me, the term urban is a signifier of the genre’s focus upon a specific set of content and attendant questions: it is a genre comprised of works that interrogate the modern subject’s aesthetic, social and political relationship to an environment shaped by human intervention and technical mediation. In other words, the urban database documentary is fundamentally geographic. This geographic focus is crucial to the genre, as it distinguishes it from other forms of database-driven practices that do not make place a central subject of inquiry or organizing principle.

If nothing else, the modern city is defined by heterogeneity. It is marked by a constantly changing amalgam of diverse people, buildings, objects, cultures, and processes. The urban is the condensation of the human. As J.B. Jackson said, "Whatever its point of departure, every discussion in the field of human geography sooner or later comes back to the city as the supreme example of man's modification of his environment."³ One of the primary challenges that has confronted artists since the rise of the metropolis has been how to effectively represent this tremendous complexity and perpetual flux. The investigation of the urban is one of the many strands that connects Vertov’s work in early modernity to the work of the Center for Land Use Interpretation in later modernity; both are driven by a desire to interpret the changing nature of individual and collective experiences of their surroundings.

My use of the term urban includes both the modern city of the late 19th century, a period defined by massive demographic and territorial expansion, as well the contemporary city,

³ J.B. Jackson, “Introduction,” *Landscape*, volume 4 (Winter 1954-1955: 2.

increasingly defined by virtual expansion and growing layers of mediation. Thus, more and more, the experience of the urban is fundamentally shaped between the lived experience of physical space and networked communication. This intersection is what I would like to call the urban imaginary, the urban experience that is inherently embodied and physical, but is also fundamentally interpellated by communications technologies. Andreas Huyssen succinctly defines urban imaginary in his 2008 *Other Cities, Other Worlds: Urban Imaginaries in a Globalizing World*. He writes,

An urban imaginary is the cognitive and somatic image which we carry within us of the places where we live, work and play. It is an embodied material fact. Urban imaginaries are thus part of any city's reality rather than only figments of the imagination. What we think about a city and how we perceive it informs the ways we act in it.⁴

The urban imaginary resides in between the individual and the collective; it is always personal, but is shaped in dialogue with dominant ideologies and the tangible nature of different localities. And it is material, the translation of mediated forms into concrete action. The urban database documentary is then necessarily a mode of media art practice that actively participates in shaping — and is shaped by — urban imaginaries.

Fundamentally, the urban imaginary is not limited to specific geographies, but is instead embodied by individuals throughout their migrations. The city cannot be entirely controlled by state authorities, but is instead constantly shaped by the refraction of power by individual and collective groups exercising their own agency, consciously and unconsciously. As Michel de Certeau writes, “Beneath the discourses that ideologize the city, the ruses and combinations of powers that have no readable identity proliferate; without points where one can take hold of

⁴ Andreas Huyssen, "Introduction," in *Other Cities, Other Worlds: Urban Imaginaries in a Globalizing World* (Duke UP, 2008): 3.

them, without rational transparency, they are impossible to administer.”⁵ Per De Certeau, the city is not defined simply by municipal boundaries or legal structures. There is a “metaphorical” city that “slips into the clear text of the planned and readable city.”⁶ It is the city dynamically produced by the layers of memory, stories and media latent within a single location, a dense sedimentation constantly evolving through spatial practices in physical and digital space. It is this complex city, a city produced between physical and virtual space, that gives rise to the urban database documentary, and which provides the material for the genre’s realization.

Implied in this method is a belief that there are not any radical ruptures that distinguish modernity from postmodernity or other notions of periodicity. Cultural practice, albeit in always new and historically contingent forms, continues to grapple with the consequences of modernization, the processes of social transformation brought about by the massive changes in urbanization and industrialization instigated in the 19th century. In this regard, I subscribe to Marshall Berman’s conception of the modern. He writes, "Modern environments and experiences cut across all boundaries of geography and ethnicity, of all class and nationality, of religion and ideology: in this sense, modernity can be said to unite all mankind. But it is a paradoxical unity, a unity of disunity: it pours us into a maelstrom of perpetual disintegration and renewal, of struggle and contradiction, of ambiguity and anguish. To be modern is to be part of a universe in which, as Marx said, 'all that is solid melts into air.'"⁷ While modernity might unite all mankind, its permutations in different geographies and in different historical periods are radically distinct and contingent. What remains central is precisely the constantly changing nature of values and rapidly rupturing effects of new technological inventions.

⁵ Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984): 95.

⁶ Ibid., 95.

⁷ Marshall Berman, *All That is Solid Melts Into Thin Air*, (New York: Simon and Schuster, 1982): 15.

Despite this state of continuous flux, my proposition is that there is continuity in the underlying dynamics, desires and aesthetic forms that drive cultural responses to the modern experience. As Baudelaire so deftly recognized in his writings on 19th century Paris, it is always a dialectic between the eternal and transitory.⁸ And the city as environment and subject of artistic inquiry is central to this dialectic of modernity.

Database

In specifying this genre, the next term we must confront is “database.” A database is a structured collection of information. A database might be an encyclopedia (either Britannica or Wikipedia); an atlas (either Aby Warburg’s or Google Maps); or an ordered set of information (either a 19th century census or Facebook). A database is distinguished from other modes of organizing information by its relative flattening of hierarchies, the ease by which it can be searched, and that its contents can re-shuffled without losing coherence. While necessarily technical on a certain level, more importantly, the database quality of the genre here in question can be read first and foremost in the creative method of the artist. For me, a database is a structural system and conceptual architecture, and in the projects I discuss, the construction of a database becomes the generative logic for the work itself.

As a way of thinking, the database evokes an architectural process that emphasizes intense attention to detail while aiming to construct a singular whole, all interrelated elements available for experience at any time and in different constellations. As in a building, no element

⁸ In his 1863 “The Painter of Modern Life,” Baudelaire describes the classic modern figure of the *flâneur*, the urban nomad that intensely observes and records the flux of experience. Of this figure, Baudelaire writes, “He is looking for that indefinable something we may be allowed to call 'modernity', for want of a better term to express the idea in question. The aim for him is to extract from fashion the poetry that resides in its historical envelope, to distill the eternal from the transitory.” (402)

in a database is ever entirely isolated (e.g. each brick is always in relation to another) and the whole is never static, always morphing through daily use and further additions.

One of the most remarkable explorations of the modern metropolis is a collection of fragments, textual and visual. Walter Benjamin's unfinished *Arcades Project* is in many ways the prototypical urban database documentary. With the intent of excavating the mythological history of modernity, Benjamin worked intensely for years scavenging through the Bibliothèque Nationale and the streets of Paris, gathering quotations and writing commentaries related to the dreamworld of the 19th century, the philosophy of history, and modern life in general. The ostensible focus was the arcades, corridors of small shops covered in glass and iron trusses that came into being in the 19th century. For Benjamin, these new forms of urban space were poignant concentrations of capitalism's perturbations, the arcades "a city, indeed, a world in miniature."⁹

With interjections of his own writing (often short, aphoristic statements or brief essays), the work was a constantly evolving collection. The bulk of the project's notes were gathered in multiple manuscripts, alphabetized and indexed for cross-referencing. Beyond this fine-grained data structure, Benjamin consistently imagined different thematic groupings, often enigmatic such as "The not-yet-conscious knowledge of what has been stems from the now."¹⁰ For Benjamin, the *Arcades Project* was the ultimate experiment in a new method of historical materialism, with the modern city as its primary subject. He emphasizes the importance of the micro in the context of a macro structure when describing his approach: "The first stage in this undertaking will be to carry over the principle of montage into history. That is, to assemble

⁹ Walter Benjamin, "Paris: Capital of the Nineteenth Century," in *Metropolis: Center and Symbol of Our Times*, ed. Philip Kasinitz, (New York: NYU Press, 1995): 47.

¹⁰ Walter Benjamin, *The Arcades Project*, translated by Howard Eiland and Kevin McLaughlin, (Cambridge: Harvard University Press, 1999): 902.

large-scale constructions out of the smallest and most precisely cut components. Indeed, to discover in the analysis of the small individual moment the crystal of the total event."¹¹

To confront the *Arcades Project* today is to bear witness to the intellectual history of new media potentialities. The invention of the computer did not give rise to the database documentary, it only enabled new forms of its realization. Benjamin's methodology was to meticulously record and organize history through fragments of voices from other texts, along with personal observations culled from lived experience in the city. But he resisted transforming this material into a unitary synthesis. Even if he had survived WWII to “complete” the project, it is clear from Benjamin’s notes on method that he understood the process of collecting quotations and short commentaries itself to be a work in itself, an illustration of an open-ended aesthetic caught in-between the particular and the totality, a dialectic at a standstill.

It is essential that Benjamin is thoughtfully building the structure for his *Arcades Project* and constantly performing the process of organizing his collection. For me, it is crucial to distinguish the role of agency and authorship in works of the urban database documentary. To qualify for the genre, the data structure and attendant algorithms must be authored/designed by the artist. One of the most crucial artistic moves of the Center for Land Use Interpretation is the design of their database and its principle categories. In other words, an artist must consciously participate in shaping the parameters of a work for the work to qualify for the genre of the urban database documentary. A standard digital archive of artifacts, while a database, does not qualify. Nor does Wikipedia, Google Maps or Facebook alone. An artistic intervention that reframes the archival repository or these other evolving databases is necessary.

¹¹ Ibid., 461.

Documentary

The last crucial term in this new genre's vocabulary is "documentary." Here, documentary does not signify a single medium. Instead, it denotes an approach to artistic practice that explicitly negotiates a dialectic between reality and its representation, and that this negotiation is made tangible in the aesthetic form of the work itself. While manifest in radically different forms within the genre, Vertov's excavation of the media-making process in *Man with a Movie Camera* powerfully illustrates documentary's productive tensions. The interrogation of representation and reality are directly intertwined.

This definition of documentary is derived from Frederic Jameson's writings on realism. In "Existence of Italy," he describes realism as "a peculiarly unstable concept owing to its simultaneous, yet incompatible, aesthetic and epistemological claims."¹² For Jameson, if a work's objective truth claims are entirely validated, it ceases to contain an aesthetic dimension, and yet any foregrounding of aesthetics necessarily exposes the subjectivity of any truth claims. However, it is precisely "this constitutive tension and incommensurability" of epistemology and aesthetics, a constant process without resolution, that gives realism its power and affect.¹³ I argue that documentary is also defined by this irresolvable dialectic.

While I foreground the importance of sustaining an aesthetic dimension in documentary, political valences are necessarily latent within my use of the term. Jacques Rancière, in his *The Politics of Aesthetics*, helps to distill the contours of this politico-aesthetic topography. Rancière examines politics from the perspective of "the distribution of the sensible." With this phrase, he means "the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and

¹² Frederic Jameson, "The Existence of Italy," in *Signatures of the Visible*, (New York: Routledge, 1990): 217.

¹³ *Ibid.*, 217.

positions within it.”¹⁴ For Rancière, the sensible is not a static category, but a domain inhabited by constantly shifting definitions of what is common sense. For example, while today for many Christians it is widely believed that the worship of images is not sacrilegious, during previous periods the representation of God was forbidden in vast sectors of society. It is such changing conceptions of prudence that constitute politics, as these shifts entail significant re-formulations of what may be seen, heard, and said, thereby constituting the possibilities (and impossibilities) of individual and collective activity.

An active and ongoing process, “the distribution of the sensible reveals who can have a share in what is common to the community based on what they do and on the time and space in which this activity is performed.”¹⁵ As with any distribution, the distribution of the sensible establishes edges, demarcating what is proper and who can participate. These edges (and interiors) are conditioned by aesthetic practices. In particular, it is documentary, as defined here via Jameson as a dialectic between reality and its representation, that has the potential to challenge and expand society’s distribution of the sensible. Rancière defines aesthetics as “a delimitation of spaces and times, of the visible and the invisible, of speech and noise, that simultaneously determines the place and the stakes of politics as a form of experience. Politics revolves around what is seen and what can be said about it, around who has the ability to see and the talent to speak, around the properties of spaces and the possibilities of times.”¹⁶ Politics is the field within which the distribution of the sensible takes place, and aesthetics are the powers that determine the potentialities latent within this field. From this perspective, Rancière argues, “An aesthetic politics always defines itself by a certain recasting of the distribution of the sensible, a

¹⁴ Jacques Rancière, *The Aesthetics of Politics*, trans. Gabriel Rockhill (New York: Continuum, 2004): 12.

¹⁵ Ibid, 12.

¹⁶ Ibid, 13.

reconfiguration of the perceptual forms."¹⁷ The genre of the urban database documentary aims to fundamentally redistribute perceptual forms.

The question is not whether a form of art such as the urban database documentary is political. Or whether a certain politics is aestheticized. For Rancière, this is a moot point, as politics and aesthetics are necessarily always entwined. He writes, "Political statements and literary locutions produce effects in reality. They define models of speech or action but also regimes of sensible intensity. They draft maps of the visible, trajectories between the visible and the sayable, relationships between modes of being, modes of saying, and modes of doing and making. They define variations of sensible intensities, perception, and the abilities of bodies."¹⁸ Rancière shifts the question away from a vague and misplaced notion of an artwork's political commitment to art's larger role as a vehicle for constructing "regimes of sensible intensity." In this light, the lens becomes whether artistic practices enable opportunities for new voices, images, and practice to be seen, heard, and enacted or whether they increase control of thought, speech, and action.

This is how we may understand the political implications of the urban database documentary. By dislodging entrenched delineations between important and trivial, fact and fiction, objective and subjective — by sustaining the incommensurability of epistemology and aesthetics — the genre contributes to the formation of political subjects that challenge the given distribution of the sensible. Moreover, Jameson and Rancière's perspectives further foreground the significance of authorial agency. The incommensurability that Jameson describes may be individual or collective, but becoming aware of this state is generated through the aesthetic work

¹⁷ Ibid, 63.

¹⁸ Ibid, 39.

authored by an artist. And it is the artist that actively articulates aesthetic boundaries, the shifting contours that construct “regimes of sensible intensity.”

Utopia

We have now detailed the terms “urban,” “database” and “documentary.” Some work, though, remains. Let’s develop a working definition of “utopia,” and then move into an excavation of kaleidoscopic perception and sensory estrangement, the two utopias that underpin my argument.

The term utopia was initially coined by Sir Thomas More in his 1516 tract *Utopia*, an imaginative account of a fictional island society. More constructed the word from Greek, combining οὐ ("not") and τόπος ("place"), meaning "no place". At the core of utopia, then, is a unique combination of desire and emptiness, the pursuit of an ideal place that is never actually attainable. In this way, I am thinking of utopia as a dialectical process, a constantly churning spiral of aspirations towards an impossible state, each attempt at total synthesis valiant...yet infinitely futile. In this sense, utopias are the unconscious desires of individuals and collectivities for alternative universes that radically imagine alterations to the status quo. As Karl Mannheim writes, “A state of mind is utopian when it is incongruous with the state of reality within which it occurs.”¹⁹

Crucially, though, utopia is projective — utopian imagination is both aspirational and material, informing the ways individual and collectivities concretely act. Similar to the urban imaginary, utopia is a mental construction that directly impacts lived experience.

¹⁹ Karl Mannheim, *Ideology and Utopia*, translated by Louis Wirth and Edward Shils, (New York: Harcourt, Brace and Company, 1936): 192.

This definition of the utopian state of mind shares much with Kant's conception of imagination. For Kant, knowledge is produced through mediation between the faculty of understanding, i.e. active cognition, and the faculty of sensibility, i.e. the empirical, unconscious data of sensory experience. He writes, "Synthesis in general, as we shall hereafter see, is the mere result of the power of imagination (*Einbildungskraft*), a blind but indispensable function of the soul, without which we should have no knowledge whatsoever, but of which we are scarcely ever conscious."²⁰ For Kant, imagination is the hinge that produces knowledge, the mediating faculty situated between the cognitive domain of understanding and the empirical sphere of sensibility. Imagination is an unconscious faculty exercised by all humans in interpreting the world and projecting their futures.

As Hannah Arendt points out in her analysis of Kant's conception of imagination, "the way imagination produces the synthesis is by 'providing an image for a concept.' Such an image is called a 'schema.'"²¹ It is no coincidence, I believe, that the concept of "schema" is also integral to the concept of the database. A database schema is the formal language that describes a database's structure, the conceptual blueprint that undergirds a database's actual operations. In the context of the urban database documentary, the database schema is a work's conceptual architecture, the specific structural system designed by the artist. Vertov's schema is defined by the interrelated logics of temporality, topic and modes of media production. This matrix provides the generative foundation for *Man with a Movie Camera*'s navigation of Soviet city life from morning to night; specific vignettes such as marriage and the marketplace; and the full process by which a film is collaboratively produced and witnessed by a mass audience. A database

²⁰ Immanuel Kant, from the *Critique of Pure Reason*, quoted in Hannah Arendt, *Lectures on Kant's Political Philosophy*, (Chicago: University of Chicago Press, 1989): 81.

²¹ *Ibid.*, 81.

schema can embody utopian impulses for both kaleidoscopic perception and sensory estrangement, serving as the mediating framework for navigating desire for total understanding and sensory immersion.

Crucial to this definition of utopia, derived from its proximity to imagination, is that utopia it is not a “thing.” Utopia is not a singular proposition of an ideal socio-political state, but instead is a lived, unconscious process shared by all individuals. Similar to Svetlana Boym’s reading of estrangement, utopia “doesn’t mean progress or a new myth of origin, but a possibility of an unpredictable and creative renewal of vision, an unforeseen space of public architecture.”²² Everyone, whether they know it or not, participates in utopian desire, and these desires are symptomatic of modernity’s underlying dynamics. Modernity produces painful paradoxes, conditions of existence that engender a constant search for resolution, resolution never-to-be-found. One of these paradoxes is the bewildering scale and pace of complexification that engenders ever-greater desires for total understanding; another paradox is the increasing drive to use technical media themselves to foster greater sensory experience, combating a perceived sense of technology’s numbing of sensation. Kaleidoscopic perception and sensory estrangement are two utopias, two states of modern desire that respond to these paradoxes and drive works of urban database documentary.

Kaleidoscopic Perception

The kaleidoscope was invented in 1817 by Scottish scientist David Brewster. In Blackwood’s Edinburgh Magazine, a report was published describing the invention. It reads, “The kaleidoscope is an instrument recently invented by Dr. Brewster, for the purpose of

²² Svetlana Boym, *Another Freedom: Alternative History of an Idea*, (Chicago: University of Chicago Press, 2010): 202.

creating and exhibiting an infinite variety of beautiful forms. The name is derived from the Greek words *kalos*, ‘beautiful’, *eidos*, ‘a form,’ and *skopeō*, ‘to see.’”²³ Fundamentally, the device is a cylinder with mirrors containing loose objects such as beads or pebbles. When a viewer looks into one end, light entering the other creates a colorful pattern, due to the reflection off of the mirrors.

The kaleidoscope appears only decades after its invention as a metaphor for the subjectivity of the modern artist. In his 1863 “The Painter of Modern Life,” Baudelaire describes the classic modern figure of the *flâneur*, the urban nomad that intensely observes and records the flux of experience. Describing the *flâneur*’s immersion in the crowd and the life of the city, he writes, “The lover of universal life moves into the crowd as though into an enormous reservoir of electricity. He, the lover of life, may also be compared to a mirror as vast as this crowd; to a kaleidoscope endowed with consciousness, which with every one of its movements presents a pattern of life, in all its multiplicity, and the flowing grace of all the elements that go to compose life.”²⁴ Baudelaire’s evocation captures the precise poignancy of the kaleidoscope as a particularly modern device. The optics do not aim to simply reflect the world outside, but instead work to refract the universe, suggesting its multiplicity and its fragmentation. However, the kaleidoscope does not propose pure disintegration, but instead uses mathematical precision to generate comprehensive patterns that strive to model totality. Importantly, Baudelaire and his emblematic *flâneur* are not simply interested in the fragments of the modern city, but explicitly are driven to develop a consciousness of “the flowing grace of *all* the elements that go to compose life.” (italics mine)

²³ In Stephen Herbert, *A History of Pre-Cinema, Volume I*, (East Sussex: Psychology Press, 2000): 227.

²⁴ Charles Baudelaire, “The Painter of Modern Life,” 1863: 400.

In this framing, Baudelaire succinctly captures a key paradoxical utopia of modernity. Aesthetic practices attempting to build coherence out of fragments emerge at precisely the moment when the rapidly fragmenting nature of the modern metropolis becomes evident. Even if it is understood that this representational coherence is only illusory, the attempt to sustain and build this illusion is an essential quality of modern urban aesthetics and experience. While as a society we acknowledge the impossibility of a singular, comprehensive view, we continue to invent new forms of urban kaleidoscopes that strive to overcome feelings of disorientation through new forms of comprehensive representation.

Despite being well-aware of its impossibility, the kaleidoscope remains essential, in much the same way that Frederic Jameson argues that cognitive mapping is predicated on the pursuit of grasping and transforming a social totality (albeit a totality that is paradoxically impossible to grasp).²⁵ Without striving for the kaleidoscopic, we become entirely lost in the field of the micro-narrative, the fragment, the local, without any vision of a larger sense of interrelation and wholeness. I choose the term kaleidoscopic perception to describe this paradoxical utopia, and I argue that the design of databases as structured collections of information provide artists a vital means of exploring the kaleidoscopic.

Sensory Estrangement

Kaleidoscopic perception and sensory estrangement both germinate from the same underlying conditions of modernity and its paradoxes, but they each take a different starting

²⁵ Jameson extends Kevin Lynch's notion of the "cognitive map" to society at large in an attempt to renew the capacity of Marxism to effectively conceptualize and aesthetically represent the totality of social relations. Jameson writes, "The mental map of city space explored by Lynch can be extrapolated to that mental of the social and global totality we all carry around in our heads in anxiously garbled forms."

point. The difference is the emphasis of their underlying desire. While kaleidoscopic perception retains fragmentation, it foregrounds the desire for totality. Conversely, sensory estrangement has the scaffolding of a total system, but it emphasizes the desire for multisensorial experiences of the micro, the finite. In this way, the two utopias constantly enfold each other.

While fear of technology's dehumanization has been rampant throughout modernity, the transformation of perception and attention to detail via new media recording technologies has simultaneously been integral to avant-garde aesthetic theories. In particular, Viktor Shklovsky, a lead thinker of Russian Formalism, developed the concept *ostranenie* or "estrangement." For Shklovsky and others, the key role of art in modernity is to serve as a set of devices for dehabituating people from routines and awakening attention to details. In his 1918 essay "Art as Technique," Shklovsky writes:

Art exists that one may recover the sensation of life; it exists to make one feel things, to make the stone *stony*. The purpose of art is to impart the sensation of things as they are perceived and not as they are known. The technique of art is to make objects 'unfamiliar,' to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged.²⁶

For Shklovsky, art is not exclusively a mode of expression (as the Romantic ideal assumed), but instead a tactical technique for producing new forms of understanding corporeal and cognitive experience through the unique capabilities of the aesthetic faculties. Estrangement, conventionally, is thought to remove one from the world or from another person. "To become estranged" is a common phrase to describe having grown apart from a partner or close friend. In contrast, Shklovsky's concept of *ostranenie* emphasizes *estrangement for the world*.²⁷ It is an explicit, intentional act to extract one's self from habits for the sake of gaining new perspectives

²⁶ Viktor Shklovsky, "Art as Technique," in *Russian Formalist Criticism: Four Essays*, translated by Lee T. Lemon and Marion J. Reis (Omaha: University of Nebraska Press, 1965): 12.

²⁷ I am deeply indebted to Svetlana Boym for this argument and phrasing. See her detailed account of estrangement *of* and *for* the world in *Another Freedom: Alternative History of an Idea*, (Chicago: University of Chicago Press, 2010): 204.

and sensory experiences. However, estrangement in Shklovsky's sense is not just a personal affair. As a device, estrangement aims to create new public aporia that can serve as dialogic spaces for collective negotiation of ambiguity. Estrangement is, in this sense, antithetical to authoritarian conceptions of singularity and stability, favoring a dynamic social process to define reality over purported universal truths. This is where Jameson Shklovsky and Benjamin intersect, Jameson's dynamic notion of realism and its incommensurability of epistemology and aesthetics echoing the dynamism of *ostranenie* and Benjamin's invention of a dialectic at a standstill.

The conceptual architecture of the database has been a crucial device for instigating estrangement and reframing the perception of often-overlooked details in the urban landscape. While the database as an ever-expandable structure lends itself to fulfilling desires for kaleidoscopic perception, it simultaneously provides a framework for heightened sensory awareness and perception of the micro. Urban database documentaries responding to the utopia of sensory estrangement such as CLUI's Land Use Database frequently deploy structures of serialization, collection, cataloguing and cross-referencing to foster new perceptual paradigms through the reframing of quotidian, banal and mundane details. Moreover, works in this mode often deploy the sonic and the haptic as strategies of challenging conventional aesthetic-sensory relationships.

As such, the urban database documentary operates via mediation, intervening in the realm of perception, that space between social context, individual consciousness and sensorial experience. Paradoxically, it is precisely artistic mediation – often via emerging media – that is imagined as an antidote to the deleterious effects of increasing mediation in society.

Authorial Agency

The new medium of the Internet has produced tremendous change. However, the Internet has not dramatically changed the underlying utopian desires that drive urban database documentary practice. The utopian desire to achieve a kaleidoscopic perspective remains incredibly powerful, as artists continue to strive for a total view of a city while knowing its impossibility and attempting to preserve the integrity of a place's individual fragments. In much the same way that the dramatic growth of the metropolis in the late 19th century triggered feelings of wild disorientation, stimulating such a kaleidoscopic desire, the overwhelming proliferation of digital information motivates the pursuit of new forms of synthesizing a whole and its parts. Similarly, the expansion of industrial technology in the late 19th century engendered fears of dehumanization, a concern paradoxically confronted by many artists with a turn to media technologies themselves as means of fostering heightened awareness of one's surroundings and subjectivity. Again, this utopian impulse for sensory estrangement is alive and well, manifested in new forms that creatively use the ever-greater networking of physical spaces and location-specific mobile devices.

While these utopian impulses and attention to uncovering new perspectives on place have persisted, albeit always in historically contingent and specific forms, the dynamics of authorship have changed dramatically. At stake in this changing landscape of authorship are changes in artistic agency. One the greatest misconceptions of our times is that there are no longer authorial voices, that culturally we are simply awash in an ocean of reruns and the flattened voices of "everybuddy."²⁸ It is my contention that authorship is alive and well. It simply has taken on myriad new forms. While intimated in early periods of modernity, we are witnessing a rapid rise

²⁸ Here I am referring to Andy Merrifield's January 2012 article in *Harper's*, "Here comes everybuddy."

in artists designing dynamic systems that set constraints while enabling diverse modes of participation and experience.

In this dissertation's final section, I change tone and shift perspective, as I speak with the voice of myself as media artist. This move aims to tease out a crucial dimension of the urban database documentary, a thread latent throughout the project as a whole — the question of authorship.

I describe various modes of authorship with the metaphor of layers. In contrast to a flattened, network model, the notion of layers implies hierarchies. Too often, today, hierarchy is inherently looked down upon. However, ignoring the real facts of hierarchy is a mistake. That Wikipedia is governed by an editorial framework with layers of hierarchy is a good thing. In fact, it is precisely the coupling of a radically low barrier to entry with such an attention to authorial rigor that has made Wikipedia a lasting institution and its social value so great. Contemporary society is enveloped by more and more digital platforms that structure artistic work. The use of the Internet as a medium is increasingly brokered by a small coterie of entities and supported by a business model reliant on advertising. We live in an age of democratizing rhetoric, but there are real risks to the current trajectory.

Per Barthes, a new reader may have been birthed, an active agent not bound to the whims of the author. But the author today is far from dead, as the multiplicity of layers of authorship have expanded in dramatically new forms. And the urban database documentary genre is a uniquely potent venue for witnessing these shifts in authorial agency.

What follows in the subsequent chapters is a journey through multiple manifestations of the urban database documentary as it responds to the utopias of kaleidoscopic perception and sensory estrangement, with particular attention throughout to the specific contours of a work's modes of authorial agency. The geographic terrain spans from Moscow to Los Angeles, Berlin to Mexico City, Chase County Kansas to New York City. First and foremost, I have aimed to select urban database documentaries that are particularly exemplary of the specific paradoxical utopia under discussion. As the genre of the urban database documentary is not defined by a specific media type, each section brings together examples that span many modes of practice, from early cinema to CD-Roms, from the first experiments in radio montage to location-based walks with mobile devices. Necessarily, my method is both diachronic and synchronic. The two core sections are expansive chronologically, each beginning with a chapter that starts in the late 19th century, followed by a chapter focused upon the past decade. Internally, these sections are organized chronologically, sequences of synchronic readings of each work. Most works address both kaleidoscopic perception and sensory estrangement in some form, but I have concentrated individual works in specific chapters to enable a rich theorization of specific symptomatic responses. Each work is distinctly inflected by its unique historicity, articulated through the specific modes by which a work addresses its utopian impulses and the unique technological assemblage that define its mediality.²⁹

The urban database documentary is a uniquely modern genre, but it is not a genre unique to the era of computers. It arises at the turn of the 20th century, a time also defined by bewildering urban and technological transformation. In this period, a city such as Berlin

²⁹ Here I am thinking of "mediality" as a term to signify the specific constellation of media that are present in any work.

quadrupled in size within decades, growing from just under one million inhabitants in 1875 to over four million in 1925. In 1891, the Lumière brothers projected film. And in 1986 Marconi received his first radio signal. It was this cultural milieu that gave rise to the genre of the urban database documentary. Today, the genre continues, manifesting in distinctly new forms online. However, the underlying cultural desires that marked its earliest incarnations remain driving forces today. The genre aspires to kaleidoscopic perception, the desire to present a portrait of a city as a totality while retaining the representation of its fragments, and the utopia of sensory estrangement, the desire to use artistic mediation to create heightened awareness and new forms of sensory experience through defamiliarization.

Section I



Kaleidoscopic Perception

The modern cities that emerged in the late-nineteenth century were immense in scale relative to urban forms of the past. A result of industrialization and new modes of transport such as the railroad and automobile, Berlin, Paris, London, Chicago, New York and other cities exploded during this time, with millions of new migrants from the countryside flooding rapidly growing urban centers. These changes were not only geographic or demographic, but also deeply cultural, inducing new forms of individual and collective perception. As Steven Marcus writes in *The Victorian City*, "One of the chief components of the distress commonly felt by many people in modern cities is their sense that the city is unintelligible and illegible."¹ In the midst of dramatic expansion horizontally and vertically, the modern city spawned feelings of significant disorientation — it was not perceived as a coherent system of signs, as an environment communicating in a language that was known.

Many of the primary characteristics of the modern urban condition are the result of this new scale of inhabitation. For Georg Simmel, the hyper-individuality that emerges in urban centers is a response to people now sharing space with so many strangers. For E.B. White, it is precisely this new scale that makes cities such as New York so liberating: one can now choose to live anonymously, unshackled from the all-knowing eyes of a small town community. Moreover, in the context of the modern metropolis, where it is no longer possible to know everyone nor every street, the boundary of an individual's conception of themselves and their environment expands. As Simmel writes in his classic 1903 essay "The Metropolis and Mental Life", "A person does not end with the limits of his physical body or with the area to which his physical activity is immediately confined, but embraces, rather, the totality of meaningful effects which

¹ Steven Marcus, "Reading the Illegible," in *The Victorian City*, edited by H.J. Dyos, (Boston: Routledge & Kegan Paul, 1973): 257.

emanates from him temporally and spatially."² Simmel's argument was furthered by his student, Robert Park, who later became one of the key progenitors of the Chicago School of urban sociology. In his 1925 essay "The City: Suggestions for the Investigation of Human Behavior in the Urban Environment," Park also formulates a definition of the city that extends beyond its built structure. He writes,

The city...is something more than a congeries of individual men and of social conveniences — streets, buildings, electric lights, tramways, and telephones, etc.; something more, also, than a mere constellation of institutions and administrative devices — courts, hospitals, schools, police, and civil functionaries of various sorts. The city is, rather, a state of mind, a body of customs and traditions, and of the organized attitudes and sentiments that inhere in these customs and are transmitted with this tradition.³

Together, Simmel and Park suggest a theory of urbanism that sees the city as an ongoing co-creation between people, social systems, cultural production, and the built environment. As such, modes of mediation and forms of urban representation become crucial interlocutors in the shaping of urban experience.

The invention of new media recording technologies coincided directly with these dramatic changes in forms of urbanization. In particular, the history of film is intimately entwined with the modern city. In early cinema, the transformation and bustling life of the metropolis was a central subject. The cityscape was the testing ground *sine qua non* for experimentation and interpretation of the new perceptual possibilities offered by film. As Tom Gunning writes, "The first films were primarily 'big city' affairs... Nearly all early film documents present a *mise en abîme* of audiences filling vaudeville halls from busy city streets in order to see projected on the screen — busy city streets. The transfer to film allowed the city street to become another sort of spectacle, one mediated by an apparatus...the street is endless

² Georg Simmel, "The Metropolis and Mental Life," in *The City Cultures Reader*, (New York: Routledge, 2003): 15.

³ Robert Park, "The City: Suggestions for the Investigation of Human Behavior in the Urban Environment," 1925: 1.

with endless attraction."⁴ Before narrative modes of cinema came to dominate into the 20th century, observational footage of urban landscapes was the sight to be seen, a core component of the "cinema of attractions."⁵

A major genre of the early cinema period was the "urban panorama." These short films were often shot from the tops of skyscrapers or the fronts of trolley cars as they traversed long stretches of the city, meeting a popular desire to grasp and come to terms with the new scale of the metropolis. Film introduced the possibility of approximating embodied experience in locations that were far afield, as well as reframing places deeply familiar to city residents by contextualizing them in a larger frame. Crucially, the subjects of many early panoramas were city skylines.⁶

These panorama films are early manifestations of the urban database documentary. Their mode is fundamentally realist (i.e. they are invested in re-presenting reality in some way to their audiences), and their process of production and presentation is driven by the collection of short fragments (i.e. the building of a database) which can be played back to audiences in multiple, distinctly-ordered sequences.

⁴ Tom Gunning, "Images of the City in Early Cinema," an unpublished paper presented at the Getty Center 'Cine-City' conference, Santa Monica, California, 28 March, 1994. This quotation is taken from Helmut Weihsmann, "The City in Twilight: Charting the Genre of the 'City Film', 1900-1930," in *Cinema and Architecture: Méliès, Mallet-Stevens, Multimedia*, eds. François Penz and Maureen Thomas (London: British Film Institute, 1997): 8-9

⁵ Here I am referring to Tom Gunning's famous notion of a "cinema of attractions," that period until 1906 that Gunning describes as fascinated with visibility and exhibitionism before the dominance of narrative integration in "The Cinema of Attractions: Early Film, its Spectator and the Avant-Garde," in *Early Cinema: space - frame - narrative*, ed. Thomas Elsaesser (London: British Film Institute, 1990): 56-62.

⁶ The panoramic drive is not only evident in 19th century panoramas and later filmmaking. Patrick Geddes's invention of the Outlook Tower in Edinburgh articulates a similar vision. First acquired in 1892 and progressively modified to fit Geddes's vision, the Outlook Tower can be understood as a potent physical manifestation of the panoramic desire. Geddes's designed an experience for visitors that began with a sweeping view of Edinburgh, so as to orient one's self, which was then followed by a camera obscura displaying details from the city, and floors of the museum that contextualized these details in relation to the world, culminating in a space of contemplation. The bird's-eye-view provided a sense of stability, coherence and legibility of a landscape that was effectively incomprehensible if only perceived on the ground.

The Urban Database Documentary and Kaleidoscopic Perception

Early cinema's panorama films are important articulations of the urban database documentary genre as they represent a utopian impulse to grasp the totality of the expanding metropolis. However, they are not simply totalizing. Unlike panorama paintings, which portend to capture a singular, static view, the filmic medium suggests a radically distinct form of subjectivity that is necessarily mobile, multiperspectival and fundamentally attendant to multiplicity. The unique ontology of the medium is that it is a rapidly moving sequence, each frame capturing a unique perspective on the world. Playback of a film reel via projection often masks this underlying technical fact, but many artists have worked to expose film for what it is in essence, a collection of fragments, spliced and sequenced by human hands.

In *Man with a Movie Camera*, Dziga Vertov reveals the editing process that defines filmmaking. In a now-classic segment, Vertov shows the film's editor, Elizaveta Svilova, reviewing reels on a light table in an editing room. The next shot shows all of the reels on the wall, organized by topic, and then we cut to the editing table's roller. The camera then zooms in to show the individual celluloid frames, at first focusing upon a woman in a head wrap. We then see the roller again, now in motion, followed by Svilova handling a rapidly moving film strip, which she then cuts with scissors at a specific segment, a series of shots that offer another perspective on the same woman with the head wrap. After zooming in again on the celluloid, we ultimately see the woman in the head wrap come to life, animated in motion, smiling and moving slightly. Thus, the magic of film is exposed. The medium is not defined by continuity of recording, a single, static point of view, but instead is always in motion, discrete frames unfolding at fractions of a second.



Figure 4a. Editing reels in Man with a Movie Camera.



Figure 4b. Film negative in Man with a Movie Camera.



Figure 4c. Flatbed editor in Man with a Movie Camera.



Figure 4d. Svivlova editing in Man with a Movie Camera.



Figure 4e. Cutting the negative in Man with a Movie Camera



Figure 4f. Frozen still in Man with a Movie Camera

So, while we have come to know these works of early cinema as “panoramas,” I argue that the kaleidoscope is a more appropriate optical metaphor to describe early cinema’s mode of representing the city. The kaleidoscope was invented in 1817 by Scottish scientist David

Brewster. In Blackwood's Edinburgh Magazine, a report was published describing the invention. It reads, "The kaleidoscope is an instrument recently invented by Dr. Brewster, for the purpose of creating and exhibiting an infinite variety of beautiful forms. The name is derived from the Greek words *kalos*, 'beautiful', *eidos*, 'a form,' and *skopeō*, 'to see.'"⁷ Fundamentally, the device is a cylinder with mirrors containing loose objects such as beads or pebbles. When a viewer looks into one end, light entering the other creates a colorful pattern, due to the reflection off of the mirrors.

⁷ In Stephen Herbert, *A History of Pre-Cinema, Volume I*, (East Sussex: Psychology Press, 2000): 227.



Figure 5. An original kaleidoscope built by David Brewster.

The kaleidoscope appears only decades after its invention as a metaphor for the subjectivity of the modern artist. In his 1863 “The Painter of Modern Life,” Baudelaire describes the classic modern figure of the *flâneur*, the urban nomad that intensely observes and records the flux of experience. Describing the *flâneur*’s immersion in the crowd and the life of the city, he writes, “The lover of universal life moves into the crowd as though into an enormous reservoir of electricity. He, the lover of life, may also be compared to a mirror as vast as this crowd; to a kaleidoscope endowed with consciousness, which with every one of its movements presents a pattern of life, in all its multiplicity, and the flowing grace of all the elements that go to compose life.”⁸ Baudelaire’s evocation captures the precise poignancy of the kaleidoscope as a particularly modern device. The optics do not aim to simply reflect the world outside, but instead work to refract the universe, suggesting its multiplicity and its fragmentation. However, the kaleidoscope does not propose pure disintegration, but instead uses mathematical precision to generate comprehensive patterns that strive to model totality. Importantly, Baudelaire and his emblematic *flâneur* are not simply interested in the fragments of the modern city, but explicitly are driven to develop a consciousness of “the flowing grace of *all* the elements that go to compose life.” (italics mine)

In this framing, Baudelaire succinctly captures a key paradoxical utopia of modernity. Aesthetic practices attempting to build coherence out of fragments emerge at precisely the moment when the rapidly fragmenting nature of the modern metropolis becomes evident. Even if it is understood that this representational coherence is only illusory, the attempt to sustain and build this illusion is an essential quality of modern urban aesthetics and experience. While as a society we acknowledge the impossibility of a singular, comprehensive view, we continue to

⁸ Charles Baudelaire, “The Painter of Modern Life,” 1863: 400.

invent new forms of urban kaleidoscopes that strive to overcome feelings of disorientation through new forms of comprehensive representation.

Despite being well-aware of the impossibility of gaining total coherence, the kaleidoscope remains essential, in much the same way that Frederic Jameson argues that cognitive mapping is predicated on the pursuit of grasping and transforming a social totality (albeit a totality that is paradoxically impossible to grasp).⁹ Without striving for the kaleidoscopic, we become entirely lost in the field of the micro-narrative, the fragment, the local, without any vision of a larger sense of interrelation and wholeness. I choose the term kaleidoscopic perception to describe this paradoxical utopia, and I argue that the design of databases as structured collections of information provide artists a vital means of exploring the kaleidoscopic.

In the next two chapters, I focus upon a series of works that foreground the utopian impulse of kaleidoscopic perception, understood both in terms of geography and temporality. Importantly, the names of all the works upon which I perform close readings are marked by the name of a city itself: Manhattan, Berlin, Moscow, Los Angeles and Mexico City. This is indicative that the scale of these projects' intervention is the perception of the city as a whole, mediated by individual and collective experience. The first chapter focuses upon works associated with the modality of the city symphony, in particular, projects from the 1910s and 1920s. The second chapter moves into the contemporary, zooming in upon works from the 1990s. These works respond in new ways to the utopian impulse of kaleidoscopic perception,

⁹ Jameson extends Kevin Lynch's notion of the "cognitive map" to society at large in an attempt to renew the capacity of Marxism to effectively conceptualize and aesthetically represent the totality of social relations. Jameson writes, "The mental map of city space explored by Lynch can be extrapolated to that mental of the social and global totality we all carry around in our heads in anxiously garbled forms."

emerging in a historical period now marked by new interactive technologies and an expansive archive of filmic records representing urban experience throughout the 20th century.

Chapter 1

The City Symphony as Urban Database Documentary

The “city symphony,” a term most commonly used to describe a series of avant-garde documentary films from the 1920s that focus upon the day-in-the-life of the modern metropolis, is crucial to the genre of the urban database documentary. Formally, the city symphony is typically identified by various qualities: 1) a temporal structure, where the film begins with morning and ends at night; 2) rapid montage as the dominant editing style; 3) shots of individuals and crowds caught unaware by a concealed camera; 4) and the treatment of a cityscape itself as the main character and actor as opposed to individual personalities.

The city symphony is one of the urban database documentary’s first incarnations, growing out of the earlier urban panorama films, expanding this model of short sequences of observational footage into feature-length works with highly sophisticated editing. The city symphony demonstrates an approach to recording the city itself as a database, as a collection of heterogeneous elements that can be organized into multiple narrative strands. Moreover, the city symphony is deeply emblematic of the urban database documentary’s utopian drive to comprehend cities as a whole while preserving the integrity of their fragments. While composed of fragmented details, the overarching ambition underlying most city symphonies is to present a portrait of a city as a totality. In this regard, it is not surprising that the most canonical works emerged in sites of massive urban transformation, places where people’s perceptual matrices were most severely disoriented through processes of modernization, thus paradoxically stoking the desire for generating new forms of kaleidoscopic perception.

The City Symphony: At the Crossroads of the Algorithm and Automation

To understand the city symphony's significance for the urban database documentary, let us begin an excavation of the city symphony's contested history in media scholarship. The most famous examples are Walter Ruttmann's 1927 *Berlin: Symphony of a Great City*, the work that gave the genre its title, and Dziga Vertov's 1929 *Man with a Movie Camera*. Ruttmann's 65 minute silent classic begins with Berlin's awakening and culminates in evening fireworks, with rapid, rhythmic montage sequences of industrial labor, street crowds, communications technologies and other *ur*-motifs of modernity documented in between. The footage is largely observational, albeit highly stylized, a unique confluence of aesthetic rigor and epistemological documentation.

Ruttmann was a pioneer of abstract, Cubist film in the early 1920s, concerned with how to realize purely filmic representation with abstract form, color and rhythm, much in the same way that Malevich and others had pushed painting to its boundaries. He called this exercise "painting with time."¹⁰ In *Berlin*, Ruttmann aimed to adopt these formal and aesthetic principles for a film using documentary footage. *Berlin* was, in a sense, his manifesto for a new mode of documentary that viewed the real world as material for visual experimentation. As Ruttmann writes, "During the long years of my development through abstractionism, I never lost the desire to build from living materials and to create a film symphony out of the myriad moving energies of a great city."¹¹ Tempo, rhythm, and formal patterns — classic characteristics of music and the symphonic form — are the driving force behind Ruttmann's film.

¹⁰ "Malerei mit Zeit" (i.e. *Painting with Time*), is the title of at-the-time unpublished set of essayistic notes by Ruttmann from 1919/1920. The text can now be found in Jeanpaul Goergen, *Walter Ruttmann: Eine Dokumentation*, (Berlin: Freunde der Deutschen Kinemathek, 1989): 73-74.

¹¹ Quoted in Standish D. Lawder, *The Cubist Cinema* (New York: New York University Press, 1975): 57.

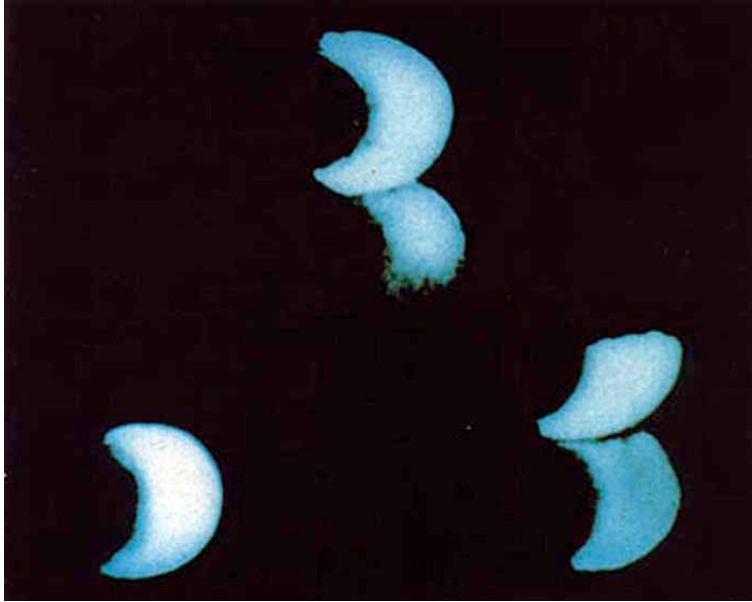


Figure 6a. Still from Walter Ruttmann's Opus 1 (1921), an experiment in Cubist cinema.



Figure 6b. Still from Walter Ruttmann's Berlin: Symphony of a Great City (1927).

Vertov's work similarly follows the morning-to-night structure; however, the film also interweaves a narrative of the projection, recording and editing of the film itself into the documentation of the daily lives of urbanites in Moscow, Kiev and Odessa. The first part of the film shows an empty theater with a projectionist taking out a reel titled "Man with a Movie Camera;" we then see people come into the theater and begin watching this film which shows a literal man with a movie camera out in the world recording events; the rest of the film follows

this cameraman (who happens to be Vertov's brother, Mikhail Kaufman), and also includes segments showing the film's editor, Elizaveta Svilova, selecting clips from the cameraman's reels, understood to be those selections that become the final film. This reflective layer of *Man with a Movie Camera* exposes the highly mediated processes by which documentaries are made, and has since become a touchstone of film and cultural theory.

Film historian and theorist Edward Dimendberg identifies *Berlin* and *Man with a Movie Camera* as the city symphony's best-known examples. But he also attempts to develop a more synthetic description of the genre that exceeds these two works. He writes,

Encompassing around twenty titles, city symphonies rely heavily upon montage to represent a cross-section of life in the modern metropolis. They typically are set in one or more identifiable metropolises whose population, central thoroughfares, and places of residence, employment, and leisure they depict over the course of a day.... Yet such works resist categorization as documentary, experimental, or narrative film. Their interest resides in the cinematographic preservation of ephemeral urban life no less than an aesthetic structure itself that evokes the rhythms, parallels, and contrasts of metropolitan civilization.¹²

From our perspective, it is interesting to note that Dimendberg defines the city symphony as an "aesthetic structure." In other words, its defining qualities are in effect rule-based strategies for organizing collections of media (i.e. databases).

Although the term algorithm today typically evokes computational processes, I would like to suggest that we broaden our scope to conceive of algorithm as a sequence of rules with clear instructions that may be carried out by *either a machine or a human*. In this light, we may recognize a filmmaker's choice to assemble a body of material according to a temporal structure as the authoring of a simple algorithm. The filmmaker is creating an aesthetic structure that then becomes generative, as this rule set guides the recording and editing processes. Moreover, the city symphony's emphasis on categories of activity (e.g. residence, employment, etc.) points to a

¹² Edward Dimendberg, "Transfiguring the Urban Gray: László Moholy-Nagy's Film Scenario 'Dynamic of the Metropolis'," in *Camera Obscura, Camera Lucida: Essays in Honor of Annette Michelson*, eds. Richard Allen and Malcolm Turvey (Amsterdam: Amsterdam University Press, 2003): 109.

rule-based structure built on organizing media according to common themes.

What is important to distinguish, then, is that *an algorithm is distinct from automation*.

While historically algorithms date back to early mathematics, algorithms used in automated computer processes dominate contemporary understandings of the term. As such, my argument is lodged at re-thinking this common misunderstanding that is prevalent today. Decoupling algorithm from automation frees us up to make greater creative distinctions in contemporary computational media practice between modes of authorship, and moreover, it helps us to better understand the longer history of rule-based artistic practices.

What a close reading of the city symphony's formal characteristics exposes is that the aesthetic exploration of algorithmic approaches to media-making was already underway before the invention of computers. However, the editing process by which these early algorithms were performed was by humans; whereas, today, many of these algorithms are automated and the process by which they are human-authored is often obscured. In the case of the historical city symphony, a work's editor performs the very simple algorithm of organizing material within a day-to-night framework. Within this general scheme, the editor has a lot of flexibility in choosing the precise clips and their relative ordering. While, of course, a machine might be able to perform such a simple algorithm, a key part of a city symphony's aesthetic vitality is the result of the fine-grained control of montage and tempo that only a human editor can produce. In other words, the significance of the algorithm is at the conceptual level of the structure, a structure that is crucially authored by the artist. As the execution of the rule set is carried by a human exercising creative agency, it is not as rigid as purely mechanical performance, allowing for occasionally eccentric decisions and nuanced curation.

This distinction between the art of authoring an aesthetic structure and the art of carrying

out a rule set is at the core of the urban database documentary. As an artistic genre, the intentional design of a framework for developing new perspectives on urban experience is crucial. And what the city symphony demonstrates is that the practice of designing such frameworks precedes the invention of the computer. This is in contrast to today's standard wisdom, which often establishes the computer as the historical agent in fostering database-driven creative work. For example, in "Database as Symbolic Form," one of the most influential theoretical texts on new media, Lev Manovich establishes the notion of a "computer age" that corresponds to the rise of the database. He writes, "After the novel, and subsequently cinema, privileged narrative as the key form of cultural expression in the modern age, the computer age introduced its correlate - database."¹³ At the root of Manovich's argument is a belief that the computer is the driver of cultural change. His general principle of new media is that it represents "the projection of the ontology of a computer onto culture itself."¹⁴ It is this technologically-determinist method that undergirds Manovich's central claim that "database and narrative are natural 'enemies.'" For him, there is no space for creative enfoldings of database and narrative, but instead he posits a strict binary, as "each claims an exclusive right to make meaning out of the world."¹⁵

In contrast to Manovich, I believe that the database's significance as a form of cultural practice precedes the invention of the computer. This perspective shifts agency from the computer to the artist, foregrounding the conceptual design of the framework over the computational performance of the rule set. Moreover, by separating algorithms from automation,

¹³ Lev Manovich, "Database as Symbolic Form," in *Convergence: The International Journal of Research into New Media Technologies*, Volume 5, 1999: 80.

¹⁴ Ibid., 83.

¹⁵ Lev Manovich, "Database as Symbolic Form," in *Convergence: The International Journal of Research into New Media Technologies*, Volume 5, 1999: 85.

we gain greater nuance in analyzing contemporary database practice. Now, it becomes possible to easily distinguish works that actively utilize human curation in shaping the final content of a collection versus works that are strictly automated search queries. For example, a rich example of recent urban database documentary is *Out My Window*, directed by Katerina Cizek and produced by the National Film Board of Canada. The project aims to explore the state of urban life around the world from the perspective of people living in concrete highrises, one of the most commonly-built forms of human inhabitation of the last century. In addition to a series of short documentary stories produced by Cizek in highrises around the world, the project invites anyone to contribute photographs of their view from a highrise window. The invitation is a basic algorithm, a rule set to-be-performed by humans. These photographs are then re-presented online, organized thematically by tags. Each view has a particular coherency, as the photos have all been intentionally produced for the project. The images carry an intimacy, an imprint of human agency. This tone is evident in contrast to a corollary collection that relies exclusively on a computer's performance of an algorithm: Google image results for the query "highrise window." What's striking in the results set are the outliers, the images that if a human hand was involved in the selection process would certainly not have been included, such as images advertising the Discovery Channel's "Dirty Jobs" series or a photo of a red M&M cleaning a window, promoting Hershey's candy. While seemingly minute, these few images completely reconfigure one's perception, breaking a sense of artistic intent and instead acquiescing to the logic of the machine.



Screenshot of images contributed by people around the world to the National Film Board of Canada's Out My Window project.

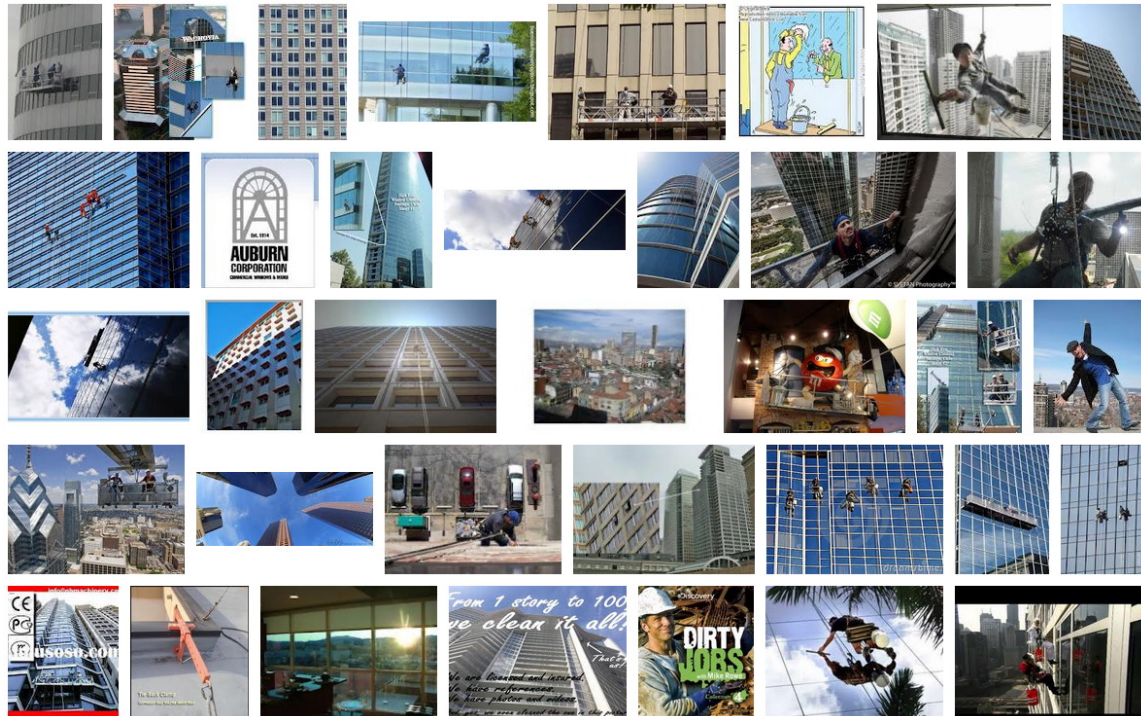


Figure 7. Screenshot of top page of Google image search results for "highrise window."

At the time, neither Ruttmann nor Vertov had the option of generating search results. However, they both had a deep understanding of the power of designing a generative framework that could be carried out in shooting and editing, processes imbued throughout with the imprint

of fine-grained editing and curatorial rigor. It is this emphasis on the craft of authoring an aesthetic structure that distinguishes the city symphony as a mode of urban database documentary. And it is the careful filling in of this structure that makes the city symphony a kaleidoscopic venture, an experiment that aims for totality, but simultaneously works to capture the multiperspectival character of the modern metropolis.

The City Symphony and the Photographic: Distilled Algorithms and Animated Lists

Dimendberg also reminds us of the important role avant-garde photographers played in the development of the city symphony. In particular, Dimendberg draws attention to László Moholy-Nagy's unfinished film scenario *Dynamik der Groß-Stadt* (Dynamic of the Great City). Began in 1921, but not published until 1924, this thirteen page sketch outlines a short, experimental film using the city itself as the vehicle for a "purely visual" effect whereby "photographic, visual relationships" are "knit together into a vital association of events in space and time," bringing "the viewer into the dynamic of the city."¹⁶ Moholy-Nagy's manuscript is designed like a sequence of film negatives, illustrating his concept through the organization of photographs, captions, textual descriptions of pacing, and ideogramatic diagrams indicating shot angles. Ranging from circus clowns to industrial smokestacks, steel-frame construction sites to zoo animals, the proposed film presents a model for the compilation of urban phenomena into a rapidly montaged film, emphasizing the rapid speed and movement of the metropolis. Although Moholy-Nagy's experiment was never realized, it marks a key instance in the development of the urban database documentary's aesthetics.

¹⁶ László Moholy-Nagy, "Dynamic of the Metropolis," in *Painting, Photography, Film*, trans. Janet Seligman (Cambridge: MIT Press, 1969): 122.

The script is, in a sense, a distilled form of an algorithm. Seeing the film paused on pages helps visualize the rule-based nature of the city symphony. Moholy-Nagy's images are real, but they can be read as stand-ins for more general categories. Moreover, Moholy-Nagy does not detail the specific site of the film, instead emphasizing the script as a generalized strategy, a model of thought later echoed in the abstraction necessary for software design and development.

Moholy-Nagy's work is but one example of how database-driven aesthetics owe significant heritage to experiments in avant-garde photography. In many regards, photography is the proto-database-driven medium, as its final forms of presentation necessarily contain multiple modes of navigation/viewing and foreground the selection choices of the author from a vast collection of media. The city symphony's roots can in part be found in the large-scale survey photography projects of the 19th century, such as Charles Marville's state-sponsored documentation of Paris before Haussmannization or Eugene Atget's thousands of idiosyncratic images from the same period. These two projects, and other similar endeavors at the time, demonstrate a drive to represent the city through a vast cataloguing, where the catalogue as a whole takes on a significance independent of the individual elements within it. The catalogue becomes the panorama, a form of kaleidoscopic perception which emerges precisely in the context of attempting to grasp the full scale of a rapidly changing metropolis.

For this reason, it is not surprising that the first major realization of the city symphony in film was actually completed by artists who had largely made their mark in photography. At the same time as Moholy-Nagy was working in Germany, across the Atlantic avant-garde photographers Charles Sheeler and Paul Strand produced *Manhatta* (1921), what many consider to be both America's first avant-garde film and the first city symphony film globally. Starting in 1920, the two artists began documenting the life of Lower Manhattan, and the final result is an

eleven-minute work that traces the passage of the day from the arrival of commuters on the Staten Island Ferry to the setting of the sun over New York Harbor.

In addition to building on the tradition of observational footage from the urban panorama genre, *Manhatta* is undergirded by the work (and sensibility) of Walt Whitman, whose list-driven form of poetry also powerfully demonstrates a pre-electronic mode of database aesthetics. In between each clip, Strand and Sheeler insert intertitles that are excerpts from Whitman's poetry.¹⁷ Eleven phrases from Whitman's poems about "the city of the world" structure the unfolding of shots portraying the life of Lower Manhattan from morning until evening. The film segments illustrate the text. We read, "High growths of iron, slender, strong, splendidly uprising toward clear skies." And then we see a shot from atop a skyscraper overlooking the city and panning down across the façades of other towering downtown buildings. By simply reading *Manhatta's* eleven intertitle "stanzas," the viewer is able to imagine all of the shots in the film.¹⁸

In a sense, *Manhatta* can be read as an animated list, the film's playback algorithm the simple sequencing of a database that contains poetic captions followed by illustrative shots. Beyond pointing to the list as a significant tool within the database documentary genre, Strand and Sheeler's strategic move to integrate material from Whitman points to the inherently intermedial nature of the genre from the beginning, as well as its early tendencies towards appropriation (a tendency which only becomes more magnified over time).

Reading the Panorama of *Moscow* in Moscow: The Actuality and the Archival Impulse

¹⁷ Intertitles are frames with text that were used in the silent cinema to simulate dialogue or present a filmmaker's position. Not surprisingly, intertitles were heavily debated in avant-garde circles during the time, as critics (such as Vertov and Ruttmann) found them to be overly didactic and to diminish the exploration of the filmic medium's inherently new, purely visual qualities.

¹⁸ I am deeply indebted to colleague Ana Olenina for this argument.

In order to better understand the specific dynamics in which the city symphony operates as a form of urban database documentary, let us begin a close reading of Mikhail Kaufman's 1926 *Moscow*. A rare gem, *Moscow* has hardly been seen in the United States and is nearly entirely absent from current film historiography, despite preceding both *Berlin* and *Man with a Movie Camera*. Less a theoretical reflection on the epistemology of the filmic medium, *Moscow* is particularly concerned with the lived experience of specific places and buildings in time. For our purposes, it is an ideal case study as it is rigorously structured as a database and squarely operates at the scale of the city as a whole, a clear manifestation of kaleidoscopic perceptual desire.

Moscow draws upon the history of the “actuality,”¹⁹ one of the earliest genres of documentary film closely related to the “urban panorama.” The actuality is a form of short film shot on location documenting basic urban phenomena, such as urban infrastructures (e.g. train stations), events (e.g. the arrival of immigrants on the shores of Lower Manhattan) and foreign locations. It originated with the first films in 1895 and evolved up through the early 20th century, losing steam with the rise of narrative cinema in the nickelodeon and more sophisticated forms of documentary. Integral to the works and their motivations was an exploration of the archival potential of film. As Jon Lewis writes, “*Moscow Clad in Snow* reveals the medium's peculiar ability to capture time and place and preserve it forever.”²⁰ Importantly, this suggests that the urban database documentary is not only responding to a utopian impulse of kaleidoscopic perception that is geographic – kaleidoscopic perception can also be temporal, historical. The

¹⁹ While related, I recognize that “actuality” has a different meaning in journalism today, where the term refers to a short, recorded segment from the field, either a soundbite from an interview or a recording of an event transpiring.

²⁰ Jon Lewis, “Review of *The Last Vaudevillian* by Jeffrey Ruoff,” in *Western Folklore*, Vol. 60, No. 4, (Autumn, 2001): 326.

utopian drive is to not only to come to terms with geographic expanses beyond comprehension, but to also use new media recording technologies to attempt a total recording of the present for the purposes of historical review in the future.

One of the first actualities shot in Russia was *Moscow Clad in Snow*, shot in 1908. This eight-minute film demonstrates the urban database documentary's drive to not only record geographic phenomena, but also to strive for preserving snapshots of places at specific periods of time. The beginning of the film situates the viewer. It opens with an intertitle reading "Kremlin - Marshal's Bridge." After a long shot framing a view of the Moscow River and its monumental banks, we cut to a series of medium long shots inside Red Square. The first is of St. Basil's cathedral in the back left with foot and sleigh traffic moving across the snow in front of a large statue; the second shot shows a guard pacing in front of a cannon; the next shifts further around the square, showing some of the area's impressive historic façades, with our view momentarily interrupted by a march of soldiers past the camera. From Red Square, we move with the camera into the heart of the city, positioned on one of the Moscow's major commercial avenues. We witness through multiple shots from a similar vantage point the consistent passing of horse-drawn sleighs across the snow-covered pavement and the frequent activity of pedestrians.

Following this geographic positioning, the film progresses into a brief exposé on the city's unique activities. The film's second intertitle reads: "Two months out of the year a big trade in mushrooms and fish is carried on." We then see traders at a market, selling strings of exotic mushrooms and large dried fish. All the characters are clearly aware of the camera and fascinated by its presence, heads occasionally popping into view to stare into the lens. Another intertitle announces our next stop: "Petrosvky Park." The common motif of horse-drawn sleighs reappears, now sliding in front of a statue with trees in the background. The trip progresses

further into the park, where snow piles up multiple feet around wooden cabins and a thin, shoveled-out footpath. After a man walks by, we cut to another shot inside the park, witnessing a group of men and women approach and then proceed past the camera on skis. Realizing a kaleidoscopic desire latent throughout the earlier shots, the final intertitle reads "General View of Moscow." The camera now rests above the city, likely at the top of one of the largest churches in the center. The first panoramic view scans across a densely packed historic fabric, with many onion-shaped church domes and steeples, eventually ending on a view framed with a church in the foreground and the 17th century Sukahrev Tower, one of the city's best known landmarks at the time and its tallest building.²¹ The final shot, very likely from the top of the Sukahrev Tower itself, is a view over the Moscow River, back to the site of the film's opening frame. The structure of the work is clearly driven by a kaleidoscopic desire to capture in a series of snapshots a portrait of the city as a whole. The film's development and motifs are clearly an early evocation of the now classic touristic representation of a city, focusing upon its key monuments, an exotic marketplace, a nice recreational park, and finally, an all-encompassing view of the city from atop one of its major landmarks.²²

Early actualities and travelogues were not only concerned, though, with touristic modes of representation. The urban database documentary patently participates in the longstanding dream of the memory palace, the ability to tie memories to specific geographic locations in order to enhance the ability to recall past events and feelings.²³ The recorded image — still or moving — becomes a tool with the explicit purpose of storing experience in mediated form. In the same

²¹ The Sukahrev Tower was famously destroyed by Stalin in 1934. See Timothy Colton, *Moscow: Governing the Socialist Metropolis* (Cambridge: Harvard University Press, 1995): 265.

²² It is interesting to note that *Moscow Clad in Snow* is not a film shot by Russians for a Russian audience, but instead is one of the earliest travelogues created by the Pathé brothers, at the time the largest film equipment and production company in the world, after having acquired the patents of the Lumiere brothers in 1902.

²³ The notion of the memory palace and other similar geo-mnemonic devices is detailed in Frances Yates's "The Art of Memory" (1966).

way that the geographic dimensions of the utopia of kaleidoscopic perception accelerate with the rapid transformation of the modern city due to industrialization, these same processes engender a drive towards preservation, with media serving as ideal sources of memory for the cityscape of the once present, now suddenly recent past. Moreover, as the urban database documentary's pursuit of total geographic representation arises at a moment of the ever-increasing impossibility of grasping such a totality, the ambition for temporal totality (complete archival success) is similarly compounded by the fact that the ever-increasing quantities of recorded information make the ability to effectively access this imaginary library impossible.²⁴ *Moscow Clad in Snow* and other actualities were recorded with this authorial aim, their structured sequences of fragments aiming to capture a moment in time, but sustaining a clear eye towards a future viewing, when the city's landscape would have necessarily been transformed through modernization.

Kaufman's *Moscow* also expresses these geographic and temporal dimensions of the utopian desire for kaleidoscopic perception. It is motivated by a similar drive towards preservation, his meticulous documentation of the metropolis in service of recording the state's achievements and aiming to provide a record to gauge historical perspective and judge future progress. It was precisely this evidence-driven quality that garnered acclaim from critics and colleagues. Kaufman's contemporary, Soviet filmmaker and theorist Sergei Eisenstein championed Kaufman's work for its evidence-based approach. He writes, "Without any lofty emotional claims, beautifully shot, well edited, [*Moscow*], naturally, resolves the task that it has set itself — showing Moscow — by means of location shooting.... *Moscow* shows *kinoculism* the healthy path and the area — newsreel — which it should occupy in the construction of Soviet

²⁴ Here, I am thinking of Borges' classic 1941 short story *Library of Babel*.

cinema."²⁵

Mapping *Moscow*: Intertitles as Database Identifiers

Kaufman's *Moscow* operates as a filmic map, literally charting the geographical, industrial, and political infrastructure of the USSR's capital. The first three parts of the film operate with the traditional temporal arc of the city symphony, moving from morning to night. The fourth and fifth parts present a political cartography of the city, showing the buildings of major foreign embassies, the arrival of diplomats, and the faces of the city's municipal leaders during government meetings. The last section catalogues the city's public achievements, ranging from workers clubs to the university to the foster homes.

Moscow reinforces the animated list as a key mode of early urban database documentary aesthetics. Like Strand and Sheeler's use of Whitman excerpts in *Manhatta* as structural devices, intertitles are integral to Kaufman's *Moscow*. In effect, Kaufman uses intertitles as database identifiers to establish individual sections within *Moscow*, moving from the general to the specific.²⁶ Like in *Manhatta*, the intertitles in *Moscow* set up the viewer's interpretation of the following shots. The logic is always predictive, not retroactive, as the intertitles serve to prepare the spectator for what is to come, never leaving a sense of ambiguity. The text is always resolved through what is seen. However, the text is far from Whitmanesque poetry, Kaufman's phrases are either very short statements describing general categories of urban activity such as "at the

²⁵ Ibid., 145.

²⁶ My reading of the meaning and geography of intertitles in *Moscow* is deeply indebted to my colleague and teacher Nataliya Kun.

station" or "leaving the station"; geographical markers naming streets, squares and major public spaces such as "Red Square," "Zoo," or "Hippodrome"; or the names of political figures whose images will soon follow. Almost exclusively, verbs are omitted. Viewed together, the intertitles read as a laundry list of Moscow's major thoroughfares, squares, monuments, parks, businesses, factories, and politicians,

The film opens with the abstract statement "the day begins," a classic trope in the city symphony, setting up a larger temporal structure progressing from morning to evening. Similar to an establishing shot, this intertitle frames the section that follows. After being situated temporally, we see images of cats in the garbage, waste clean-up crews, a woman pasting up a new poster, and the washing down of the streets.²⁷ While the film's title has told us we are in Moscow, we do not know where exactly we are standing in these initial shots. The geography remains abstract, kaleidoscopic.

Following the opening sequence, there is a series of three intertitles proclaiming "to work." After the first, we travel with the camera for an overhead shot of trams, pedestrians, and horse-drawn carriages crossing at a major intersection. After the second "to work," the camera moves to the street-level and we see cars exiting a garage from the left side of the frame onto the street on the right. After the next "to work," the frame is reversed, and we see buses leaving a station from the right of the shot to the left. Lastly, we read "ALSO to work," and are taken to a street-level shot of pedestrians walking into the center city. This is followed by a cut to an overhead shot of another pedestrian, bringing us full circle to the initial overhead shot of the trams and carriages. Next, we move to the Moscow river and then on to the city's train stations. This opening sequence establishes Moscow as the center of a network of circulation, each shot

²⁷ These are all common features of city symphony films, as well as some fictional films from the time, including Boris Barnet's *The House on Trubnaya Street* (1928).

differentiating the key modes of public and private transportation that will later serve to mobilize Kaufman's camera — and by extension the viewer.

After being introduced to the city's awakening and its transportation networks, we read the next generalized title denoting a new section: "On the streets." Having created an overall sense of place, now Kaufman will use the intertitles in *Moscow* to establish detailed, geographical specificity. In this way, the titles can be read as a map overlaid on Kaufman's filmic footage. The camera is brought back to street-level for a quick shot of the historic Red Gate surrounded by circulating trams. Then, there is the title "Past the Red Gate." The shot establishes spatial continuity with a similar view of the Red Gate, and now we are in motion. Clearly, Kaufman has stepped onto one of the many circulating trams we have just seen and the cityscape begins to pass by.

The Red Gates were located on the northeastern corner of the *Sadovoye Koltso* (Garden Ring), the peripheral ring road built in the early 19th century along the path of the city's 16th century ramparts. In the 1920s, this ring marked the border between the pre-industrial and industrial Moscow. The Red Gates were two of many gates from the 18th century along the city's ramparts, but the Red Gates were the only ones to survive into the 20th century and at the time of *Moscow* were very significant landmarks of the city's pre-Revolutionary past. They were actually flashpoints of the city's conflicted relationship between the Tsarist (i.e. bourgeois) past and the Soviet present and future. Many urbanists in 1920s Moscow favored historic preservation, and envisioned the Soviet city as a mixture of the old and the new, yet others strongly supported the demolition of pre-Revolutionary landmarks to be replaced by new architecture true to the Revolution. The gates embody this ambivalence.²⁸ The gates were renovated in spring 1926,

²⁸ Colton, *Moscow*: 29,30, 164, 230, 420, 579.

during the filming of *Moscow*, and were actually demolished to make way for the expansion of the Garden Ring on June 3, 1927. By choosing to start his mapping journey at this symbolic juncture, Kaufman creates another temporal structure beyond the standard morning-to-evening city symphony narrative. *Moscow* uses the history of the city's architecture and landmarks to establish a historical trajectory from the pre-Revolutionary period up to Soviet Modernism, beginning with the Red Gates and the *Sadovoye koltso*, ending with the Shukov Radio Tower, one of the city's most important post-Revolutionary landmarks. This temporal dimension underscores Kaufman's investment in the archival impulse of the urban database documentary and the paradoxical utopia of kaleidoscopic perception. His film is meant not only as a record of the changing city, but is also a historically-inflected argument for a new master-narrative of the future Soviet metropolis.

The geographic and temporal mark of the Red Gates becomes an entrance to the city center. Moving from the Red Gates, we travel with Kaufman down busy Myasnitskaya Street to Lubyanka Square, the edge of the city's first ring, the *Bulvarnoye kolto* (Boulevard Ring). When we arrive at the square, the camera moves from the tram to an elevated position above the square, pausing to take in the area's traffic. A pattern has been established for this section of traveling shots: a mobilized camera from the perspective of the tram up to a major square, followed by elevated, static panning shots of the plazas. This pattern continues on our next drive.

This time we begin further from the center, moving from *Tverskaya zastava* (near the Belorussky Rail Terminal in the northwest of the city), through the Triumphal Gate — a 19th century landmark. Passing through the gate, the camera pans up to the marching horses atop the gate, and then dissolves to a static shot from the perspective of the horses overlooking Tverskaya. We then read "Along Tverskaya" and return to motion along one of the tram's

heading down the major avenue. We arrive at Strastnoy Square, marking the edge of the *Sadovoye kolsto*, where we stop for an extended overview of the square. We then turn right down Tverskoy Boulevard to Nikitskie Square, before moving on to Arbatskie Square.

Following these two drives from the northeast and northwest to the center, we read: "from Zamoskvorechye over the Moscow river along the bridges." We see an elevated view from the southern bank of the Moscow river to the center, followed by intertitles introducing footage showing the two major bridges: *Krymsky most* (Crimean Bridge), the city's first steel bridge built in 1873 by Armand Struve and *Moskvoretsky most*. Now, we have reached our ultimate destination, the absolute center of the city: Red Square and the Kremlin, along with Sverdlova Square and the Bolshoi Theater. As opposed to *Man with a Movie Camera* or *Berlin*, Kaufman uses montage not to displace the spectator into multiple spaces, cinematically sutured but disjointed geographically. Instead, Kaufman's uses the first part of *Moscow* to guide the viewer on continuous, geographically specific tours through the city, in the process establishing two temporal structures: the progression from morning to night, and the evolution of the city from its pre-Revolutionary past up through its Soviet present.

The final intertitles and shots of *Moscow* are centered upon one of the city's legendary Revolutionary landmarks, the Shukov Radio Tower. Constructed from 1919-1922 by engineer Vladimir Shukov, this 150-meter conical "hyperboloid turned steel" broadcast the Moscow city and Comintern radio stations and "symbolized the revolutionary future."²⁹ The building exemplified tremendous technical achievement, as its structure was at the cutting-edge of engineering progress worldwide, and it signaled the adoption of modern mass media. Of course, Kaufman's choice to culminate his temporal map of Moscow here is no accident.

²⁹ Blair Ruble, "Moscow's Revolutionary Architecture and Its Aftermath: A Critical Guide," in *Reshaping Russian Architecture*, ed. William Brumfield (Cambridge: Cambridge University Press, 1990): 126.

The shots of the Shukov tower are distributed between four intertitles, which together form one of the few complete sentences in *Moscow*: "And every day radio station 'Great Comintern' tells the whole world about the life of the Soviet Union." The first title fragment is "And every day," and it is followed by a head-on shot of the tower from the outside, the camera slowly rising up from the bottom emphasizing the height of the building. This shot feels like it is from the perspective of the person on the ground. The second title is "radio station Great Comintern," and the illustrating shot picks up from the low-angle view of the tower and begins spinning, creating a series of oblique perspectives emphasizing the dynamism of the building's structure and the movement inherent in the medium of radio. The third title is "tells the whole world." Now, we move inside the tower and the camera is pointed straight up, while moving slowly in a circle. From this angle, the spines of the tower mimic in steel the invisible forms of the radio waves emanating out to the world. The last title is "about the life of the Soviet Union," and following this completion of the film's culminating sentence, the camera moves back outside Shukov's structure. The shot is positioned slightly farther away than the opening image and askew, with a significant portion of the frame devoted to the sky and the rapidly moving clouds.



Figure 8. Shukov tower in Moscow

Kaufman's approach to the Shukov tower shares much with Aleksander Rodchenko, a central figure of the Constructivists who lead pioneering experiments in architecture, graphic design, sculpture, and photography. Rodchenko was close with Kaufman and Vertov, as he explored the place of Constructivism in film, contributing to various films, including the intertitles and animation sequences in Vertov's *Kino-Glaz* (1924), and the intertitles for *Kino-Pravdas* 13 and 14 along with *A Sixth Part of the World*. Rodchenko also designed the famous poster for *Kino-Glaz*, which he included on the wall in his 1925 Workers' Club interior exhibition in Paris. Rodchenko's philosophy of photography insisted upon shooting from odd angles in opposition to standard eye-level representation. In manifesto-like tone he declared: "Photograph from all viewpoints, except the 'navel,' until all viewpoints are recognized. And the most interesting points of today are the viewpoints 'from the top down,' the 'bottom up,' and their

diagonals."³⁰ Kaufman's cinematography also echoes this approach.³¹ By destabilizing the spectator's perspective, Rodchenko and Kaufman work to foster defamiliarization, placing their audiences on unstable ground, forcing them to consider the contingency of their vision.

Kaufman and Rodchenko even engaged in a written and visual dialogue around the Shukov tower. In a letter entitled "The Paths of Contemporary Photography" to Boris Kushner, a member of the *LEF* editorial board, Rodchenko defends Kaufman's representation of the tower against Kushner's characterization of it as looking "more like a bread basket than a truly marvelous structure."³² Kushner's criticism was based on a 1926 issue of *Sovetskoe foto*, in which there was a layout illustrating Osip Brik's polemic "What the Eyes Does Not See" that featured a series of Rodchenko photographs from Miasnitskaia street and a still image shot underneath the tower from Kaufman's *Moscow*. Rodchenko pushes Kushner to recognize Kaufman's work in the context of cinema instead of strictly still photography: "Kaufman's picture is only one of the frames he shot around the tower from various viewpoints, and for that matter, in the cinema his viewpoints are in motion; the camera turns and the clouds pass over the tower. *Sovetskoe foto* talks about the 'photo-picture' as though it were something closed and eternal. On the contrary. The object must be seen in several different photos from different viewpoints and positions, as though looking around it, and not as though peeking through one keyhole."³³ Driving home his point and his affinity with Kaufman, Rodchenko photographed the Shukov Tower himself a few years later in 1929, shooting the now famous image *Guard, Shukov Tower*. The photograph is characteristically skewed on a diagonal, a similar perspective as a

³⁰ Aleksandr Rodchenko, *Experiments for the Future: Diaries, Essays, Letters, and Other Writings*, trans. Jamey Gambrell (New York: Museum of Modern Art, 2005): 212.

³¹ In particular, I am thinking of: Kaufman's spiraling shot of a fire escape ladder at 27:04 and Rodchenko's *Fire Escape* (1925) and Kaufman's diving shots starting at 36:48 and Rodchenko's *A Jump into Water* (1934).

³² Rodchenko, 211.

³³ *Ibid.*, 211.

frozen moment from Kaufman's final spin around the great structure at the end of *Moscow*.

Throughout *Moscow*, Kaufman consistently works to present the city from all perspectives, and many of his shots are similar to Rodchenko's photographs. This multiperspectivalism is a key dimension of the urban database documentary, and another response to the utopia of kaleidoscopic perception. Paradoxically, while aiming towards totality, multiperspectivalism intentionally undermines the stability of a complete, unified picture by making visible the multiplicity of views on a single subject.

This final sequence can be read as Kaufman's mini-manifesto on filmmaking and urbanism. As other buildings and spaces throughout *Moscow*, Kaufman treats the Shukov Tower as lived architecture. The Shukov Tower is not just a symbol or an image, it is also an actual building at a specific place in a specific city where people perform a set of ongoing activities in service of a central organ of the national communications system. This literal labeling and mapping is combined with sophisticated visual techniques. Kaufman's four shots serve to position the spectator as both a media producer and listener. At first, as spectators we are static visitors to the site, but we are then mobilized, enter the apparatus, identifying with the inner-workings of the building and its outgoing radio broadcasts, and finally exit to hear our creations. The sequence is at once distinctly utopian in the message of its titling, but also in the upward-view of its camera angles. The slow spinning of the camera emphasizes the tower's spiral structure, evoking Hegelian dialectics and the other great tower of the Soviet avant-garde, Tatlin's unrealized Monument to the Third International. The combination of static and moving shots draws out the contrast between still and motion photography, the particularity and potential of each medium. As a culminating instance, this monumental symbol of the new serves as a bookend to the film's early reverence for the old, embedded within a direct verbal political

address. In this regard, the final scene epitomizes *Moscow*'s kaleidoscopic ambitions, both geographic and temporal, tying a grand cartographic view to a sweeping historical narrative.

Urban Database Documentary's Transparency: Exposing the Data Structure before Open APIs

Moscow is not only instructive for our purposes of understanding the urban database documentary because it demonstrates the genre's response to the utopia of kaleidoscopic perception. The structural mechanisms of geographic and temporal ordering we have looked at are crucial indices of the inherent database-driven qualities of the film. In contrast to other genres, the urban database documentary tends to expose its underlying structure. Today, we see this in the proliferation of open Application Programming Interfaces, or APIs, that provide clear, simple methods for accessing and manipulating information from a database. The engine of the database documentary itself – its properties and its rules – are often made transparent to the viewer. And when the structure is not made visible, its often part of the fun for the viewer to try to interpret the structural logic driving the work.

Crucially, this display of organizational structure was evident before the invention of computers. In the case of *Moscow*, these properties are bluntly articulated through the film's intertitles, in much the same way that we see contextual information organizing the shots in Svivlova's editing room in *Man with a Movie Camera* and the way metadata contextualizes media online today. And in contrast to other city symphonies, *Moscow* deploys a rule-based approach to geographic representation. The early sequences are organized according to a literal mapping, where shots are followed by proximate shots. If such an approach were to be translated into contemporary terms and an automated algorithm, the database would be instructed to play

back items in order of their geographic proximity – one item following the other according to which item in the database is most closely located to the current one.

In a sense, *Moscow* can ultimately be read as an early evocation of Google's Street View. However, what's crucial to distinguish, as discussed at the beginning of the chapter, is the difference between human and machine editing. The database of street view images certainly aspires to a total representation of human geography – the ultimate in the utopia of kaleidoscopic perception. *Moscow*, similarly aims for a total view. In contrast, though, *Moscow* is a highly structured and finite path through the database of all possible on-location recordings. Not all streets are captured, only those that most effectively communicate Kaufman's overarching argument vis-à-vis the city's geographic and temporal transformation. The recordings and sequencing of edits are all made by humans. They are rule-based, algorithmic, but they are not automated, thereby foregrounding the artist's agency in authoring the framework and subjectively performing the rule set.

Chapter 2

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Contemporary Kaleidoscopes and Urban Imaginaries

Through a multitude of media coverage, books, and museum exhibitions in recent years, the public's engagement with key issues of the city and urban culture seems to have reached a new high. By now, those who read daily newspapers and visit museums have all at one point or another been confronted by the statistic that for the first time in history 50% of the planet lives in urban areas and that this percentage is rising. As the urban database documentary genre negotiates the utopia of kaleidoscopic perception in this context, it has expanded into forms far beyond cinema.

Mexico City, one of the world's largest metropolises with a population hovering around 20 million inhabitants, is almost always included in such discussions about the state of the global cities today.³⁴ This recent attention and representation is not new to a city with an extensive history stretching across millennia from its origins as the capital of a mighty pre-Columbian empire, to its place at the center of the Spanish colonies, and its subsequent and current role as the seat of the modern Mexican state. However, the history of representing Mexico City has left dramatic gaps. Interestingly, one of the most prominent gaps has been at the level of kaleidoscopic perception.

Rubén Gallo, in the Introduction to *The Mexico City Reader* writes, "One of the most popular modes of theorizing Mexico City posits the capital as a place that has evolved gradually but consistently through the centuries, where cultural traditions dating from the Aztec city survive in the megalopolis of the twenty-first century... These works present the history of Mexico City as an unbroken continuum from pre-Columbian times to the age of NAFTA."³⁵ As Gallo points out, one of the most significant drawbacks to this mode of theorization is its failure

³⁴ See for example the TATE Modern's 2007 exhibition *Global Cities*
<http://www.tate.org.uk/modern/exhibitions/globalcities/>

³⁵ Rubén Gallo, "Introduction" *The Mexico City Reader* (Madison: University of Wisconsin Press, 2004): 6.

to effectively approach the city of today. In these works, contemporary Mexico City is presented "as an appendix — a tragic coda."³⁶

In addition, what such modes of theory often fail to grasp is the everyday lived experience of the city's residents. In the discursive history of Mexico City, many of the works focus on the city's architectural marvels, from Aztec ruins to Spanish colonial palaces. As Gallo writes, these building-obsessed studies "fail to take into account the most important element of Mexico City: its inhabitants."³⁷ In addition, there is a large and important field of literature that explores the significant challenges the modernizing city has faced: from political corruption, to crime, pollution, poverty, and overpopulation. Compared to the typically rosy-eyed historical accounts, these works often present an exclusively dystopic view of the city. In this light, Gallo asks, "we might now wonder about an alternative model for theorizing Mexico City that avoids these extremes — the overly pessimistic and the overly optimistic — and allows us to reach a more balanced view of the capital in the twenty-first century."³⁸ It is in this theoretical and representational context in which *ABCDF: Graphic Dictionary of Mexico City* intervenes.

ABCDF: The Dictionary as Kaleidoscopic Database

Like Mexico City itself, *ABCDF* is not small. The project consists of a 1502 page book organized as a dictionary from A-Z, featuring a mixture of photography, design, historical imagery, literary fragments, and a complete glossary corresponding to each term. There is also

³⁶ Ibid.: 7.

³⁷ Ibid.: 8.

³⁸ Ibid.: 9.

an interactive CD-Rom that uses an interface of cross-referenced tags to access a selection of the book's photographs, as well as short videos and sound recordings. Lastly, the project also consists of a large-scale exhibition, held initially at the city's major public art museum, Palacio de Bellas Artes, that has since traveled to multiple institutions internationally. All of the material was produced by over 200 artists and ordinary citizens, compiled and selected by lead editors Cristina Faesler Bremer and Jerónimo Hagerman.

Being structured as a dictionary, *ABCDF* is fundamentally a database by definition, an organized collection of information with each entry given relatively equal prominence to another. And evidenced by its name and scale, the project is a vivid illustration of the urban database documentary's utopian impulse to intervene at the level of an entire city's kaleidoscopic perception.

The book is so large that it comes packaged in a thick bright red cardboard carrying case, complete with plastic handle. On the outside of the box, one side reads ABC (in black) DF (in white). DF stands for *Distrito Federal*, the Federal District, the common name for Mexico City used by residents and others in the country. The other side of the box is a holographic image of the city. Not an aerial photograph, the picture is taken at a slight incline overlooking the city. The bright lights of a freeway and residential neighborhood are in the foreground; in the middle swath are specks of office towers; and in the background rest the mountains surrounding the valley of Mexico. There is a big sky overhead. When you move the box, the hologram generates a form of micro city symphony, transforming from early morning to mid-day to evening, with the sky turning into a bright, vibrant sunset. The image sets the tone for the book: there is the clear ambition to represent the city as a whole, from morning to night, from the periphery through the center to the surrounding landscape. And while the image is elevated, it is not a

scientific overview, but instead an overlook. One could easily imagine a person standing on a hill on the edge of the city taking the picture, maybe from a place where couples drive on weekends on dates to enjoy the view. It is fundamentally situated and emotional. It is the lived city.

When you open the cover of *ABCDF*, the insides are covered by an MC Escher-esque graphic of an alphabet city. Letters stand on top of buildings, spiral staircases lead to pre-Columbian pyramids, the letter "I" looks like it's going into a church, and the letter "J" is resting on top of a gazebo. It is a labyrinthine city of letters composed of Mexico's pre-Columbian, colonial, and modern history. On the first page, Cristina Faesler Bremer describes the inspiration for the project:

This project arose out of the idea to create a book about the experience of living in the Federal District.... This book is a collective exercise to discover and try to understand the sundry affection that this city inspires in its most mysterious, intimate, and devoted aspects. More than glorifying or denigrating, the intention was to dig into what it means to live in a cluster of these proportions.

The photos and texts share a similar point of view by containing a personal vision that contributes to the collective image. For this reason, we placed the credits of the authors and artists at the end along with a glossary that helps to give a context to the entries.³⁹

ABCDF aims to represent the lived experience of the city, understood as a dialectic between the individual and the group, a composition constructed from "personal vision that contributes to the collective image." Like the city symphonies of the 1920s, *ABCDF* is fundamentally based in the structure of a database – the dictionary-based collection of media serving as the foundation for presenting a multiplicity of perspectives. Montage remains an essential aesthetic strategy; however, in contrast to the defining works of the urban database documentary genre in the 1920s, montage is most powerfully expressed as a collision of subjectivities. In Kaufman's *Moscow*, while shots show many vantage points, such as the Rodchenko-esque final sequence encircling the Shukov tower, the cinematography is clearly derived from a single authorial

³⁹ Cristina Faesler Bremer, *ABCDF: El Diccionario Gráfico de la Ciudad de México* (Mexico City: Editorial Diamantina, 2001): 8.

perspective. *ABCDF*'s rich tapestry of multiperspectivalism is generated through the contrast of the 200 authors that contributed to the work. Similar to the photos contributed to *Out My Window*, this media is rigorously curated, ensuring an authorial voice that speaks through the overarching tone of the work.

ABCDF's fundamental matrix is individual words. Literally organized from A-Z, the book includes generic words that one would find in every city such as Flag (*Bandera*), Food (*Comida*), or Hero (*Héroe*). Here, the specificity of place is created by the imagery, clearly drawn from the everyday life of Mexico City. Flag is illustrated by a photograph of a man driving an older VW bug with a Mexican flag on his hood. And following this page, there is a grid of Mexican flags in many different settings in the city: on license plates, in store windows, on rooftops, hanging under the rearview mirrors of average cars. Food is represented by photographs of sliced fish, a man holding meat in a grocery store, a kid smearing mayonnaise onto a corn at a street vending station, a man pushing a fruit cart, amongst many other pictures. Hero is represented by two Mexican wrestling figures. These are all partial definitions, articulated in distinct visual forms by different artists working in the context of a larger rubric. For the reader, the experience is thus one of uncertainty of definition, an invitation to define words in one's own multimedia language.

Some words are used in unexpected ways to call attention to local practices, such as *Apartado*. The standard meaning of *apartado* is "reservation," like at a restaurant, but in the book it is illustrated by a series of pictures showing different buckets, poles, milk crates, bottles or boxes in the street. In a 2002 interview, Faesler said: "The idea behind what we are showing in this book is that things are really surprising. Sometimes they are so banal that you don't look at them while you are walking in the streets. For example, we use the word *apartados* [reservation]

for these strange things to keep places for parking space on the street. If you only saw photos of these things, you wouldn't say that this an *apartado*, but when you say *apartado* like we do in the dictionary you show that you understand, yes, in fact, someone thinks about taking a place in the street with something."⁴⁰ While the dictionary format of *ABCDF* presents a veneer of objectivity, the reader quickly discerns the highly subjective nature of the associations of words and images. The overarching claim is indeed towards documentary aesthetics, as Faesler wants to represent "what it means to live in a cluster of these proportions," but that reality is understood to be fabricated and negotiated through the matrices of individual and collective imaginaries.

The dictionary also includes words of specific places in the city, such as the book's first term *Abasto* (the city's major industrial produce market), *Zócalo* (the city's central square) or *Tepito* (the neighborhood long infamous for inner-city crime). It includes city rituals, such as *Reyes Magos* (The Three Kings) and words for civic infrastructure, like Public Swimming Pool (*Balenario*) or the Subway (*Metro*). Some of the words are more political: *Zapatista* shows rebels marching in the *Zócalo*; *Prostituta* shows a solemn face of a pregnant woman; *Migrante* is illustrated by a two-page spread showing families struggling to move into the city. The list of words could (and does) go on and on. The abstract structure of the dictionary allows a new multimedia language to emerge, one specific to the city. The language embodies the imagined community of the city, and the particular words, images, and glossary definitions comprise the intersection of personal, individual, and subjective contributions.

In the end, it is this framework of constraints — the design of the database — embodied in *ABCDF*'s re-interpretation of the dictionary format that is the work's most powerful element. This dictionary as media database serves as a vehicle to produce a new kaleidoscope for the city,

⁴⁰ Jesse Shapins. "ABCDF: Urban Dictionary of Everyday Life" *MUSEO* Vol. 5 (New York: 2002): 16.

an aesthetic structure that aspires to totality, yet revels in the fragmentary. The project's impulse is patently utopian, projecting a schema that mediates between a total understanding of the city and the unconscious sensing of the lives of each inhabitant of the megalopolis. *ABCDF* unites hundreds of contributors from multiple perspectives and histories; however, this integration is not in the interest of establishing authority for an individual firm or group of authors, but instead suggests a collective endeavor to excavate the landscape of the city as a shared language. As Bremer writes, "The photos and texts share a similar point of view by containing a personal vision that contributes to the collective image."

**The Path through the Finite and Infinite:
ABCDF as a "Work of Movement" in an Expanded Cinematic Field**

Computer scientist Theodor Nelson is recognized as having initially coined the term "hypertext" in a 1965 lecture at the 20th national conference of the Association for Computing Machinery. His speech focused on his work towards developing a new system for structuring files he called the ELF, short for *evolutionary file structure*. He said, "Let me introduce the word 'hypertext' to mean a body of written or pictorial material interconnected in such a complex way that it could not conveniently be presented or represented on paper."⁴¹ He also used the term "hypermedia," when referring to systems that interlink not just blocks of text, but also audio, video, or other media material. It was not until the early 1990s that the terms hypertext and hypermedia made a full-scale entrance into the discourse of the humanities, though their conceptual underpinnings were already established in literary theory.

⁴¹ Theodor Nelson, "A File Structure for the Complex, the Changing, and the Indeterminate," in *The New Media Reader*, eds. Noah Wardrip-Fruin and Nick Montfort (Cambridge: MIT Press, 2003): 144.

George Landow first connected the thought of Derrida and Barthes and the innovations of Nelson in his 1992 book *Hypertext: The Convergence of Contemporary Critical Theory and Technology*. In particular, Landow draws upon Roland Barthes's evocation of his ideal form of textuality. In *S/Z*, Barthes writes,

In this ideal text, the networks [*réseaux*] are many and interact, without any one of them being able to surpass the rest; this text is a galaxy of signifiers, not a structure of signifieds; it has no beginning; it is reversible; we gain access to it by several entrances, none of which can be authoritatively declared to be the main one. . . ; the systems of meaning can take over this absolutely plural text, but their number is never closed, based as it is on the infinity of language.⁴²

Landow compares Barthes's vision with what he describes as the Internet's open-ended, perpetually unfinished textuality defined by terms such link, node, network, web, and path.

It is these qualities of multiple paths and infinity of language that define *ABCDF*. And while the project shares much with earlier urban database documentaries that aspire to kaleidoscopic perception, its aesthetic form and mode of operation is fundamentally distinct from films the such as *Berlin*, *Man with a Movie Camera* and *Moscow*. *ABCDF* must be understood as rooted in the cultural and technological specificities of the late 20th century, forms evoked and imagined during the avant-garde but unrealizable until the advent of computers and advances in multimedia processing.

In her book *Atlas of Emotion*, Giuliana Bruno expands the history and theory of the cinematic field, illustrating intersections between architecture, visual art, and film. Two of the projects Bruno highlights are Aby Warburg's *Mnemosyne-Atlas* and Gerhard Richter's *Atlas*. And although clearly distinct, these two paradigmatic image collections share much with *ABCDF*. As Bruno writes, Warburg's *Atlas* "was composed of diverse screens of pictures that ranged in subject from art to science to the everyday."⁴³ And describing the content of Richter's *Atlas*, she

⁴² Roland Barthes, *S/Z*, trans. Richard Miller (New York: Hill and Wang, 1974): 5-6.

⁴³ Giuliana Bruno, *Atlas of Emotion*, (New York: Verso, 2002): 341.

writes, "Taken singularly, most of the pictures, unclassified and unclassifiable, are apparently banal, routine, and disposable. These pictures are snapshots — intimate souvenirs."⁴⁴ The same is true of *ABCDF*, also a collection that brings together images from high art to the everyday. And like these two historical *Atlases*, each picture in *ABCDF* derives its resonance not as an independent image, but instead in combination with others, in series, within the overarching kaleidoscopic network of the dictionary.

The process of experiencing each of these works, in the form of exhibition and publication, shares ground with the cinema, as the spectatorial experience is defined by movement. Describing Richter's *Atlas*, Bruno writes, "Traveling through the strata of Richter's *Atlas* is an experience that produces a *moving* effect."⁴⁵ Motion was also critical to Warburg's own understanding of his work, as he describes his endeavor as "the representation of life in motion."⁴⁶ Further articulating this link between these works and the cinema, Bruno writes,

Because one moves along a space when reading pictures, a photo installation may contain a cinematics: a spectacle of display enacting kinetic and spatial-corporeal affairs. In Richter's *Atlas*, this process is pushed to the limit, both authorially and spectatorially, as it drives the construction of the show. While it reveals the photographic bent of Richter's work as a painter, the exhibition fundamentally questions still photography and pushes the boundaries of the medium. By presenting an overwhelmingly cumulative "series," *Atlas* ultimately asks us to reflect on still photography's relationship to the moving image. Photography, investigated here, is transformed on the grounds of the cinematics exposed.⁴⁷

Likewise, traveling through the pages of *ABCDF*, the entries of the CD-Rom, or the many images of the exhibition, the reader is engaged in a form of cinematic spectatorship. In a similar vein, it is a mistake to evaluate *ABCDF* within the exclusive terms of still photography. Not only is photography but one element of the multiple media contained in the project, the ontological

⁴⁴ Ibid.: 334.

⁴⁵ Ibid.: 332.

⁴⁶ Ibid.: 342.

⁴⁷ Ibid.: 339.

substrate of *ABCDF* is the interrelationships between the images and the psychosomatic experience aroused in the spectator by the montage of media within the dictionary structure.

ABCDF further overlaps with Warburg's and Richter's atlases in its relationship, and resistance, to monumentality and taxonomic control. Discussing Richter's work Bruno writes,

This is not a collection striving to exhaust its own subject. By the same token, *Atlas* is not an encyclopedia. It does not wish to be all-encompassing. It gives definite form to the knowledge it presents. These are fragments set in motion in an orderly fashion but with no systematic or systematizing logic. The work is boundless, and yet bound. New images are constantly incorporated; and they can change the form — the territory — of the ever-growing atlas.⁴⁸

Instead of a fetishizing total knowledge and authority, *ABCDF* is a work that is "boundless, yet bound."⁴⁹ There is order, but no rigid system. As Lydia Haustein writes, "Warburg places his selected images in a schema that today we would situate between 'hypertextual link' and tagging."⁵⁰ And although the book, CD-Rom and exhibition indeed are static, the conceptual structure of the dictionary invites the spectator to imagine an infinite horizon of new entries. While early urban database documentaries in the tradition of the actuality reveled in the aesthetics of objectivity, contemporary works such as *ABCDF* are driven by a new dimension of kaleidoscopic perception: the construction of a vast, totalizing system that simultaneously is so extreme in scale that it necessarily acknowledges its incompleteness.

ABCDF's hypertextual nature is writ at the level of the project as a whole, but is most immediately apparent in the interactive CD-Rom. The user navigates the database either by choosing individual words from a list from A to Z, or by uncovering cross-references embedded

⁴⁸ Ibid.: 335.

⁴⁹ I am using this phrase from Giuliana Bruno's insightful reading of Gerhard Richter's *Atlas* project in her *Atlas of Emotion*, (New York: Verso, 2002): 335.

⁵⁰ Lydia Haustein, "Magie und Digital Bilder," in *Der Bilderatlas im Wechsel der Künste und Medien*, eds. Sabine Falch, Inge Münz-Koenen and Marianne Streisand, (München: Wilhelm Fink Verlag, 2005): 321. Translation from German to English by myself.

within each picture that subvert a strictly alphabetical mode of discovery. For example, when a user is viewing the entry for airport, one of the four pictures is of a service worker on break, playing chess, passengers carrying luggage in the background. When the user scrolls over the chessboard, the word *tablero* (or "square area for playing chess and other table games"⁵¹) appears as a button. When the user clicks *tablero*, she is taken to the *tablero* entry, which features historic photographs of people playing chess in the city. One of the pictures is a tournament in the Zócalo, in front of the main cathedral. When the user scrolls over the cathedral, she is then given this option for further navigation.

This structure allows non-linear exploration ad infinitum, the city truly reconfigured as a navigable database documentary. In this way, *ABCDF* approaches Barthes's "ideal text," as it is based "on the infinity of language," and indeed operates as a hypertext in the terms described by Landow. However, it is not only the CD-Rom that is "an open-ended, perpetually unfinished textuality," but instead the entire work. And this work is not only defined by the constellation of media products themselves, but also includes the infinite horizon of spectatorial interpretations. To uncover this expanded definition of "work," and its inherent "openness," both crucial dimensions of the urban database documentary genre, let us now turn to the work of Italian theorist Umberto Eco.

In 1962, Eco published *Opera aperta*, or *Open Work*. In the opening chapter he writes,

A work of art...is a complete and *closed* form in its uniqueness as a balanced organic whole, while at the same time constructing an *open* product on account of its susceptibility to countless different interpretations which do not impinge on its unadulterable specificity. Hence, every reception of a work of art is both an *interpretation* and a *performance* of it, because in every reception the work takes on a fresh perspective for itself.⁵²

Indeed, Eco argues that all art is in the end "open." Whether or not the original artist intentionally

⁵¹ Faesler Bremer: 1437.

⁵² Umberto Eco, *The Open Work*, trans. Anna Cancogni (Cambridge: Harvard University Press, 1989): 4.

creates his or her work with multiple perspectives of audience interpretation in mind, this interpretation is inevitable. For this reason, Eco posits a more specific definition for works of art that "characteristically consist of unplanned or physically incomplete structural units."⁵³ This "more restricted classification of works...can be defined as 'works in movement.'"⁵⁴ While the emphasis of Eco's text is musical and literary works, his theory can easily be applied to other media, in particular an expanded field of cinema, as it is the domain of pictures in motion.

At the crux of Eco's text is an argument about the nature of human perception. He writes,

In order to be defined, the object must be related back to the total series of which, by virtue of being one possible apparition, it is a member. In this way the traditional dualism between being and appearance is replaced by a straight polarity of finite and infinite, which locates the infinite at the very core of the finite. This sort of 'openness' is at the heart of every act of perception.⁵⁵

Eco's exploration of perception rests upon the paradox of locating "the infinite at the very core of the finite," and this is by the theoretical core of his notion of "openness." Every phenomenon posits infinite interpretations, yet is also always finite. For this reason, every work of art is inevitably "open," yet only certain works are "works of movement."

Interestingly, Eco speaks specifically about the format of the dictionary in his essay. He writes,

Now, a dictionary clearly presents us with thousands upon thousands of words which we could freely use to compose poetry, essays on physics, anonymous letters, or grocery lists. In this sense the dictionary is clearly open to the reconstitution of its raw material in any way that the manipulator wishes. But this does not make it a 'work.' The 'openness' and dynamism of an artistic work consist in factors which make it susceptible to a whole range of integrations. They provide it with organic complements which they graft into the structural vitality which the work already possesses, even if it is incomplete. This structural vitality is still seen as a positive property of the work, even though it admits of all kinds of different conclusions and solutions for it.⁵⁶

For Eco, the traditional dictionary is not an "open work," because it lacks an artistic "structural

⁵³ Ibid.: 12.

⁵⁴ Ibid.: 12.

⁵⁵ Ibid.: 16-17.

⁵⁶ Ibid.: 20.

vitality." Fundamentally, the traditional dictionary is not authored. It does not operate in a field of relations, but instead slips into chaos. *ABCDF*, however, subverts this character of the traditional dictionary. *ABCDF*, and the genre of the urban database documentary in general, has an ontological basis that is "boundless, yet bounded." *ABCDF* is not simply a vast repository of all possible media related to Mexico City organized into an A-Z format. Fundamentally, *ABCDF* is authored and curated, and viewed from a contemporary perspective, this aspect crucially sets the project apart from vast media hosting services we see on the web today such as Flickr or YouTube.

The book is, of course, a static publication. And the interactive CD-Rom is also a closed database. Readers cannot author their own words or alter definitions. Instead the contents selected are highly curated, only a small subset of all possible words and associations. As media, *ABCDF* presents the city from the perspective of Faesler Bremer and her fellow editors. *ABCDF*'s boundlessness is then derived from its relationship to the city, as an invitation to perceive the city as a read/write database, open to definition and re-definition. Although closed in content, *ABCDF* is open conceptually, its framework and content suggesting a specific mode of being in the city. Although *ABCDF* is firmly situated in a geographical discourse, it is not an atlas. Instead of creating a personal atlas, the spectator of *ABCDF* creates her own dictionary. And by extension, she engages in the dialogic process of the language of the city, as the urban space of Mexico City is ultimately the narrative that unfolds.

Describing her opinion of what the dictionary structure evokes in the reader, *ABCDF* editor Faesler Bremer says:

The dictionary form, curiously, makes you see the city as if you are walking.... Of course, when you walk you don't see things in alphabetical order, but when you are looking through the book, jumping from one side to the other, what happens is that you see a speed bump next to the man shining shoes which is next to the food-cart. Knowing that you cannot imagine what comes next, you allow yourself to just flow, allow yourself to enjoy the process. That puts you into an infantile

state of enjoying surprise, and then you begin reflecting and realizing, "Yes, it is incredible that I can be surprised."⁵⁷

The dictionary form of *ABCDF* parallels the experience of walking in the city by stimulating a specific attitude of curiosity and reflection. The city is defined as the field of the unexpected, and *ABCDF* virtually reproduces this quintessential character of urbanity not through the content of its images, but through its psychological impact.

Michel de Certeau establishes the relationship between language and walking in the city in his classic *Practice of Everyday Life*. De Certeau writes,

The act of walking is to the urban system what the speech act is to language or to the statements uttered.... It is a process of appropriation of the topographical system on the part of the pedestrian (just as the speaker appropriates and takes on the language). It is a spatial acting-out of the place (just as the speech act is an acoustic acting-out of language). It implies relations among differentiated positions, that is, among pragmatic "contracts" in the form of movements (just as verbal enunciation is an "allocation," "posits another opposite" the speaker and puts contracts between interlocutors into action). It thus seems possible to give a preliminary definition of walking as a space of enunciation.⁵⁸

So, to "speak" the language of the city via *ABCDF* is to walk in the physical city, imbued with an appreciation of the surprising, interrelated nature of the urban environment. The spectator of *ABCDF* that enacts the project in the streets of the city shares much with that classic figure of urban modernity, the *flâneur*. And to return the discussion to the expanded cinematic field, we can again reference Bruno, who writes, "The modern *flâneur* is the film spectator. The perfect *flâneur* is the passionate film spectator."⁵⁹ The film spectator is also a reflective subject, and cinema in its broadest sense, including mixed-media "works of movement" such as *ABCDF*, is a mechanism for facilitating particular subjectivities. As Bruno writes, "Cinematic space moves

⁵⁷ Shapins: 16.

⁵⁸ Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984): 97-98.

⁵⁹ Giuliana Bruno, "Streetwalking around Plato's Cave, or the Unconscious is Housed," in *Streetwalking on a Ruined Map: Cultural Theory and the City Films of Elvira Notari* (Princeton: Princeton UP, 1993): 49.

not only through time and space or narrative development but through inner space. Film moves, and fundamentally 'moves' us, with its ability to render affects and, in turn, to affect."⁶⁰

This ability to engage "inner space," is cinema's power to impact subjectivity. Film theorist Vivian Sobchack eloquently establishes this connection when she writes:

The cinematic mechanically projected and made visible for the very first time not just the objective world but the very structure and process of subjective, embodied vision — hitherto only directly available to human beings as that invisible and private structure we each experience as "my own." That is, the materiality of the cinematic gives us concrete and empirical insight and makes objectively visible the reversible, dialectical, and social nature of our own subjective vision.⁶¹

ABCDF, although clearly different than the classic film mechanism to which Sobchack refers, also carries the potential for illustrating such a reflective subjectivity. Bringing together individual perspectives into a collective whole, while maintaining the integrity of the single fragments, *ABCDF* is also "a lived-system that necessarily entails not only an enworlded object but always also an embodied and perceiving subject."⁶² With each picture and associated term, the reader immediately asks, "Why is this image placed with this word? Who's vision does this grouping reflect? What do I associate with this term?" The legibility of the database structure is an open invitation to actively participate on one's own terms in the framework laid out by the project's authors.

The suggestive strength of *ABCDF* is derived from this space of intersubjectivity in which it intervenes. As Michael Holquist writes, summarizing the work of Russian literary critic

⁶⁰ Bruno, *Atlas of Emotion*: 7.

⁶¹ Vivian Sobchack, "The Scene of the Screen: Envisioning Cinematic and Electronic 'Presence,'" in *Materialities of Communication*, eds. Hans Ulbrich Gumbrecht and K. Ludwig Pfeiffer (Stanford: Stanford UP, 1994): 96.

⁶² *Ibid.*: 97.

Mikhail Bakhtin,

Existence, like language, is a shared event. It is always a border incident on the gradient both joining and separating the immediate reality of my own living particularity (a uniqueness that presents itself as only for me) with the reality of the system that precedes me in existence (that is always-already-there) and which is intertwined with everyone and everything else.⁶³

This space of intersubjectivity is the utopian desire for kaleidoscopic perception, the impulse to seek a comprehensive structure, to understand the reality of the total system, while sustaining the integrity of one's own living particularity.

A Media Archaeology of Place: The Urban Database Documentary in an Expanded Field of Media Artifacts

As we have seen, early urban database documentaries such as city symphonies took their primary raw material to be in-situ recordings of the city's physical landscape. *ABCDEF*, albeit much more recent, follows in this vein. However, the urban database documentary genre changes through modernity as cities become increasingly mediated and the material artifacts of their mediation become accessible as editable media themselves. Already in the 1920s the practice of found-footage filmmaking was underway, most notably, Esfir Shub's 1927 *The Fall of the Romanov Dynasty*, a critical history of pre-Soviet Russia comprised of clips Schub unearthed in archives and cellars around the country. Mechanical recording now has existed for well over a century, and the traces of this recorded past are immense, vast troves of archival material available for creative re-interpretation. As we have noted, early cinema was deeply concerned with documenting the changing metropolis, and as cinema has evolved, the recording of urban landscapes has continued to be a dominant subject. This is true not only within documentary, but

⁶³ Michael Holquist, *Dialogism: Bakhtin and his World*, (New York: Routledge, 1990): 28.

also narrative fiction, with countless films shot on location in major cities and cities themselves constructed as sets in endless Hollywood productions. To excavate these sediments of mediation often follows an impulse towards kaleidoscopic perception, artists aspiring to navigate the vast tentacles of the archive towards a total view that retains the vitality of fragments. Thom Andersen's 2003 film *Los Angeles Plays Itself* is the most significant urban database documentary that makes use of this rich urban media history.

Los Angeles Plays Itself is a video essay. There is an overarching voiceover (written by Andersen, but read by Encke King) that persists for 169 minutes. The visual track is composed almost entirely of excerpts from films shot in Los Angeles or portending to portray Los Angeles. For this reason, Andersen describes the film as a "city symphony in reverse," as the material of his film is not his own recordings of the city, but a city symphony composed of selecting material from the vast database that is the history of Los Angeles's mediations. Andersen's goal is to use these fragments to bring the implicit visions of the city's geography and history from the background into the foreground.

The subject of place – and the role of mediations of place – are the film's central inquiry.

In the second minute, the voiceover reads:

I know movies aren't about places, they're about stories. If we notice the location, we're not really watching the movie. It's what up front that counts. Movies bury their traces, choosing for us what to watch, then moving on to something else. They do the work of our voluntary attention. And so we must suppress that faculty as we watch. Our involuntary attention must come to the fore. But what if we watch with our voluntary attention instead of letting movies direct us. If we can appreciate documentaries for their dramatic qualities, perhaps we can appreciate fiction films for their documentary revelations.

Andersen's evocation of voluntary versus involuntary attention is a reference to Hugo

Münsterberg's theorization of the cinema.⁶⁴ Münsterberg argued that our daily lives were a

⁶⁴ For Münsterberg, our daily lives are constantly a struggle between voluntary and involuntary attention. He writes, "In practical life we discriminate between voluntary and involuntary attention. We call it voluntary if we approach the impressions with an idea in our mind as to what we want to focus our attention on.... It is quite different with the

constant struggle between the perception of things we intentionally seek to comprehend and that which we cannot ignore due to habituation or sheer perceptual power (e.g. loud sounds, bright surfaces, etc.). For Andersen, to watch films as evidence of spatial attitude and documentation of place is a means of pushing against the involuntary, empowering voluntary attention to new ends.

The target of Andersen's work is at the level of kaleidoscopic perception, the identity of the city as a whole. As in the preceding examples of *Berlin* and *Moscow*, the city's name figures centrally in the work's title. And the first lines of the voiceover read: "This is the city: Los Angeles, California. They make movies here. I live here." Setting up a dichotomy between the grounded, experiential perspective of the resident and the mythmaking industry of Hollywood, *Los Angeles Plays Itself* is a polemic against popular cinema's totalizing construction of Los Angeles identity. Amongst many criticisms, one of Andersen's strongest is that the Los Angeles produced by Hollywood is devoid of the everyday experiences of working-class and minority Angelinos.

Andersen's process in developing the film was thoroughly database-driven, even though he did not use a computer. He took notes for every film he watched. He then made a file card for every film with summary notes and indications of timecode for each note, and then put the cards in file boxes in alphabetical order. He says, "Of course, as the film changed, I had sometimes to go back and consider all of the films in light of a new topic (modes of transportation or voluntary and involuntary attention, for example). . . . I could have used a computer, but I think it's the same process."⁶⁵ In the context of analyzing city symphony films we looked at the distinction between

involuntary attention. The guiding influence here comes from without. The cue for the focusing of our attention lies in the events we perceive...

⁶⁵ Email correspondence with the author, June 29th, 2011.

algorithm and automation, identifying the works' algorithmic characteristics in their structured approach to temporal and geographic organization. Here, we again see an example of indexing and curation being developed as cultural practices without the intervention of the computer as machine. *Los Angeles Plays Itself* is a philosophical manifestation of the potential now latent within the Internet and its vast expanses of indexed, digitized media clips. Distinct from the appropriation art of the 1980s, what Andersen's work signals is the conceptual design of the database as an integral mode of artistic practice. In this case, the database design process consisted of delimiting the set of all possible entries to those works of film that address Los Angeles implicitly or explicitly.

Authorship of urban database documentaries works on two levels: there is the scale of the framework, the rule set, and there is the scale of the performance of the rule set, the production and curation of the content that manifests inside the framework. In this case, Andersen is responsible for authoring both. Even though much of the visual material he uses originates elsewhere, he is in control of the juxtapositions and framings that re-contextualize this found footage. That Andersen did not in fact use a computer for any of this makes a key point of my overarching thesis even more salient: it is not the machine that is responsible for the urban database documentary. The genre is based on artists intentionally designing databases, aesthetic structures that give shape to their work.

Another way to describe Andersen's methodology is a media archaeology of place. Primarily developed by European media historians and theorists over the last 20 years, the term "media archaeology" has emerged as a mode of studying media that gives particular attention to the often-overlooked sidepaths of media history. Media archaeologists push back against the often presentist obsessions of media studies, "excavating" forgotten media-cultural phenomena

that have been left outside the canonized narratives about media culture and history. While the discourse of media archaeology has done much to open up the field of media studies, there has been relatively little exploration of the socio-spatial implications of media archaeology's attacks on conventional media history and theory. My proposition of a media archaeology of place adopts media archaeology's critical position vis-à-vis hegemonic narratives of technological development to uncover a history of practices that expose and critique dominant modes of representing place.

Often uncritically inheriting McLuhan's simplistic conflation of medium and message, scholars working in media archaeology tend to neglect the distinct forms of content that are inscribed in media's vast history. However, as evidenced by *Los Angeles Plays Itself*, the representation of place has been crucially intertwined with technological recording from the beginning, whether intentionally or unintentionally. I suggest that we may adopt media archaeology's emphasis on histories of suppressed, neglected, and forgotten media for suppressed, neglected and forgotten places and their representation in media.

Los Angeles Plays Itself and the methodology of a media archaeology of place represents one of the urban database documentary's latest responses to the utopian drive for kaleidoscopic perception in our contemporary media-saturated society: urban disorientation is no longer just a result of the physical and social scale of the metropolis (as during the era of the first city symphonies).⁶⁶ The contemporary city is increasingly defined by virtual expansion and growing layers of mediation. Thus, more and more, the experience of the urban is fundamentally shaped between the lived experience of physical space and engagement in networked communication.

⁶⁶ Of course, the subject of increasing mediation is also integral in its own way to the early city symphonies. The newspaper and the telephone are constant motifs in Ruttmann's *Berlin*.

The rapidly evolving layers of media representation that enmesh cities are also integral in shaping the lived experience of place.

In this way, the central philosophical questions of urban experience circulate around issues of the relationship between lived experience — phenomenological, embodied action in material space — and the domain of the cognitive and imaginative. In other words, this mode of inquiry is a further interrogation of the longstanding philosophical dilemma of the mind/body relationship and the role of images and other forms of sensorial stimulation in constructing subjectivity. On this note, James Donald writes, "The traffic between urban fabric, representation and imagination fuzzies up epistemological and ontological distinctions and, in doing so, produces the city between, the imagined city where we actually live."⁶⁷ For Donald, and others operating in the contemporary discourse of the urban imaginary, the question necessarily arises of the relationship between imagination and reality.

In his 1996 book *Modernity at Large*, Arjun Appadurai articulates the means through which the concept of imagination has changed through new media. For him, imagination is no longer the province of the expressive, Romantic, solitary artist, but now a public, collective enterprise produced through the ongoing mediation of our everyday lives. He writes, "The imagination has broken out of the special expressive space of art, myth, and ritual and has now become a part of the quotidian mental work of ordinary people in many societies. It has entered the logic of ordinary life from which it had largely been successfully sequestered."⁶⁸ Appadurai's media theory is also an explicit critique of Adorno and Horkheimer's reading of mass media as the culture industry. Appadurai argues, "It is wrong to assume that electronic media are the

⁶⁷ James Donald, *Imagining the Modern City*, (Minneapolis: University of Minnesota Press, 1999): 10.

⁶⁸ Arjun Appadurai, *Modernity at Large*, (Minneapolis: University of Minnesota Press, 1996): 5.

opium of the masses."⁶⁹ In contrast, Appadurai foregrounds tactics of consumption (à la De Certeau). He writes, "There is growing evidence that the consumption of the mass media throughout the world often provokes resistance, irony, selectivity, and in general, agency."⁷⁰

Andersen's response to this condition via *Los Angeles Plays Itself* is not to let the powers of media control a city's image, but to use these mediations against those powers to re-shape the contours of the kaleidoscope. Tactically, this is carried out through treating all media representations of urban space as forms of documentation, thereby engendering a creative process of database design, indexing and contextualization that become the foundation of a new work. The creative license Andersen took to create *Los Angeles Plays Itself* – to interpret the mediated history of Los Angeles as an archive available for re-interpretation – illustrates precisely the power individuals increasingly have vis-à-vis mass media. Andersen's film has never been fully released due to fears of a Hollywood crackdown on its liberal interpretation of fair use, only further underscoring the work's subversive nature. More than ever, the material substrate of the urban imaginary – the media artifacts of urban representation – are available for archaeological excavation and re-contextualization in urban database documentary practice.

Exiting the Kaleidoscope

The urban imaginary is the individual's negotiation of the paradoxical utopia of kaleidoscopic desire. How does one position one's self in relation to a whole that is at once undeniable in its attraction as a form of comprehensive knowledge and yet forever elusive as a result of constant fragmentation? The urban database documentary as a genre articulates this

⁶⁹ Ibid., 7.

⁷⁰ Ibid., 7.

tension. The structural quality of the database is a conceptual architecture that emphasizes a flattening of information for rapid retrieval and reconfiguration, thus implying infinite expandability. This aspect of the genre tends towards kaleidoscopic perception. Simultaneously, the fact that the database is always comprised of unique items (each genuinely distinct from the next), implies the genre's second fundamental utopian impulse: sensory estrangement, the desire to estrange one's self *for* the world, to develop an intensified perception of the often-overlooked details of everyday life. We have already witnessed the ways in which city symphonies and *ABCDF* aim to foster new modes of awareness. In the next section, I will expand the corpus and move on to a series of new texts that in their own distinct forms powerfully demonstrate the urban database documentary's particular attention to inspiring forms of defamiliarization through media art practice that respond to modernity's perceived attempt to numb the sensorium through increasing technologization.

Section II

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Sensory Estrangement

While the kaleidoscope engages at the scale of the city as a whole (i.e. Berlin, Moscow, Los Angeles, Mexico City as such), the utopia of sensory estrangement revels in the micro. This dimension of the urban database documentary seeks to foster heightened awareness and sensory experience, a response to the perceived sense of overwhelming technological development in modernity. Like the utopia of kaleidoscopic perception, the utopia of sensory estrangement has powerful links to the processes of mass urbanization in the late-19th century. Crucially, the senses are not exclusively biological – they are also shaped by specific technological, social and cultural conditions. This period instigated a reconfiguration of the sensorium, the historically-inflected forms through which humans perceive the world.

One of the dominant cultural currents during the rise of modernity was the fear of technology's destruction of the human sensorium.¹ These anxieties were widespread, but were acutely reflected in discourses on the modern city. Completed in 1927, the same year as Walter Ruttmann's *Berlin*, Fritz Lang's film *Metropolis* is a classic dystopian articulation of modern fears of technology's takeover. The story is set in a fictional, stylized modern city that is vertically segregated to satirize capitalism: the catacombs at the bottom are the home of the workers and the upper tiers of skyscrapers are the lands of management. Caught in between are Maria, a teacher, and Freder, the son of Fredersen, the city's founder. Fredersen has been collaborating with the scientist Rotwang to devise a strategy to protect against a workers revolt. Together, they are inventing a mechanized human, an automaton that can be controlled at their

¹ From the very beginning of industrialization, we see a simultaneous process that begins to cherish handmade craft. It is precisely this negotiation of the artisanal and industrial that makes the Arts & Crafts Movement so thoroughly modern.

whims. Maria begins leading the workers in revolt, and in response, Fredersen and Rotwang decide to make the automaton in the form of Maria, to serve as an imposter. The film's final scene is a clash between Maria and her mechanized double, a poignant illustration of society's fear of mechanization's increasing power.

While this fear of technology's dehumanization was rampant, the transformation of perception and attention to detail via new media recording technologies has simultaneously been integral to avant-garde aesthetic theories. In particular, Viktor Shklovsky, a lead thinker of Russian Formalism, developed the concept *ostranenie* or "estrangement." For Shklovsky and others, the key role of art in modernity is to serve as a set of devices for dehabituating people from routines and awakening attention to details. In his 1918 essay "Art as Technique," Shklovsky writes:

Art exists that one may recover the sensation of life; it exists to make one feel things, to make the stone *stony*. The purpose of art is to impart the sensation of things as they are perceived and not as they are known. The technique of art is to make objects 'unfamiliar,' to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged.²

For Shklovsky, art is not exclusively a mode of expression (as the Romantic ideal assumed), but instead a tactical technique for producing new forms of understanding corporeal and cognitive experience through the unique capabilities of the aesthetic faculties. Estrangement, conventionally, is thought to remove one from the world or from another person. "To become estranged" is a common phrase to describe having grown apart from a partner or close friend. In contrast, Shklovsky's concept of *ostranenie* emphasizes *estrangement for the world*.³ It is an

² Viktor Shklovsky, "Art as Technique," in *Russian Formalist Criticism: Four Essays*, translated by Lee T. Lemon and Marion J. Reis (Omaha: University of Nebraska Press, 1965): 12.

³ I am deeply indebted to Svetlana Boym for this argument and phrasing. See her detailed account of estrangement *of and for the world* in *Another Freedom: Alternative History of an Idea*, (Chicago: University of Chicago Press, 2010): 204.

explicit, intentional act to extract one's self from habits for the sake of gaining new perspectives and sensory experiences. However, estrangement in Shklovsky's sense is not just a personal affair. As a device, estrangement aims to create new public aporia that can serve as dialogic spaces for collective negotiation of ambiguity. Estrangement is, in this sense, antithetical to authoritarian conceptions of singularity and stability, favoring a dynamic social process to define reality over purported universal truths

As such, art practice operates via mediation, intervening in the realm of perception, that space between social context, individual consciousness and sensorial experience. Paradoxically then, it is precisely artistic mediation – often via emerging media – that is imagined as an antidote to the deleterious effects of increasing mediation in society.

The Urban Database Documentary and Sensory Estrangement

The conceptual architecture of the database has been a crucial device for instigating estrangement and reframing the perception of often-overlooked details in the urban landscape. While the database as an ever-expandable structure lends itself to fulfilling desires for kaleidoscopic perception, it simultaneously provides a framework for heightened sensory awareness and perception of the micro. Urban database documentaries responding to the utopia of sensory estrangement frequently deploy structures of serialization, collection, cataloguing and cross-referencing to foster new perceptual paradigms through the reframing of quotidian, banal and mundane details. Moreover, works in this mode often deploy the sonic and the haptic as strategies of challenging conventional aesthetic-sensory relationships.

The contingency of sensory experience is at the heart of Walter Benjamin's *Arcades Project* and Benjamin's thought in general. In his classic "Work of Art in the Age of Its

Technological Reproducibility,” he writes, “Just as the entire mode of existence of human collectives changes over long historical periods, so too does their mode of perception. The way in which human perception is organized — the medium in which it occurs — is conditioned not only by nature but by history.”⁴ A similar consideration of the reconfiguration of sensory experience also underlies Marshall McLuhan’s investigation of the transformations in the arts and the sensorium instigated by new electronic media later in the century.

Throughout his 1964 *Understanding Media*, McLuhan establishes a privileged position for the artist in modern times. He writes, “The artist is always engaged in writing a detailed history of the future because he is the only person aware of the nature of the present. Knowledge of this simple fact is now needed for human survival.”⁵ For McLuhan, the artist has a fundamentally unique sense of perception.

McLuhan is most famous for his argument that “the medium is the message,” that the specific characteristics of a medium in general are what determine its social impact, not its content. This, of course, has a thoroughly technologically-determinist dimension, as McLuhan explicitly calls into question the idea that it is the specific human use of technology that matters. In other words, for McLuhan, what matters is not the different individual applications of a new technology (e.g. the apps one writes for an iPhone), but the universal effects of a new technology (e.g. since the introduction of the iPhone, the boundaries between work and private life are further narrowed).

There are, however, shards of human agency that McLuhan articulates. The transformations brought on by the electric age might be inevitable according to McLuhan, but

⁴ Walter Benjamin, “Work of the Art in the Age of Reproducibility (Third Version),” in *Walter Benjamin: Selected Writings*, edited by Howard Eiland and Michael Jennings, vol. 4: 255.

⁵ Marshall McLuhan, *Understanding Media*, (New York: McGraw Hill, 1964): 65.

awareness of these transformations is not. While numbing is the conventional response, he argues that we do have the ability to develop awareness of media's different, total effects. He writes, "These media, being extensions of ourselves, also depend upon us for their interplay and their evolution."⁶ And this is where the artist and avant-garde utopian aspirations come in. The artist is the necessary figure to "wake up" people from their "somnambulism," perceiving the different sensory effects of media: "The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without any resistance. The serious artist is the only person able to encounter technology with impunity, just because he is an expert aware of the changes in sense perception."⁷

By releasing us from the numbing of our senses created by new technologies, the artist can prepare us for new shocks to our sensorium that will inevitably come. He writes, "I am curious to know what would happen if art were suddenly seen for what it is, namely, exact information of how to rearrange one's psyche in order to anticipate the next blow from our own extended faculties."⁸ The artist does not only prepare us to gain awareness and release us from our numbness. The total effect of new media in the electric age is a return to our synaesthetic, pre-literate past. McLuhan writes, "By imposing unvisualizable relationships that are the result of instant speed, electric technology dethrones the visual sense and restores us to the dominion of synesthesia, and the close interinvolvement of the other senses."⁹ Whether such optimism for the power of art is in fact true, McLuhan's vision of the artist is fundamentally utopian, and a further echo of the avant-garde's vision of artistic agency in transforming society. The utopia of sensory estrangement is, in this regard, also a utopia of mediated synesthesia, the classically modern

⁶ Ibid., 49.

⁷ Ibid., 18.

⁸ Ibid., 66.

⁹ Ibid., 111.

paradoxical idea that media technologies both numb our senses and simultaneously offer channels through which we may become re-sensitized.

The next chapter begins with an analysis of Walter Ruttmann's *Weekend*, an experimental audio montage from 1930 that aimed to foster awareness of the city's multisensoriality. Chapter 4 offers a theorization of the deep map through a reading of William Least-Heat-Moon's *Prairyerth (a deep map)*, a literary piece that use structural approaches to record and represent often-overlooked landscapes. The concept of the deep map and its connection to sensory estrangement is further developed through sustained analysis of The Center of Land Use Interpretation's *Land Use Database*, an evolving inventory of "unusual and exemplary" sites (typically unnoticed features of the landscape). This database serves as a foundation for the group's other cultural interventions, including performative tours and interpretative landmarks, all aiming to foster "a widened sense of awareness of the physical world that surrounds us." The chapter ends with a close reading of Janet Cardiff's audio walks, further iterations of deep mapping, and contemporary echoes of Ruttmann's sonic experiments. Cardiff's works, in particular *Her Long Black Hair*, interpret the cityscape as an infinite database of historical and fictional narratives – past, present and future – from which selections are made and overlaid on the physical landscape to foster new sensory encounters.

Chapter 3

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Sound, Space and Embodied Sensation in the Urban Database Documentary

The history of documentary arts and the city in the early 20th century is not exclusively visual. It is fundamentally multisensorial. On June 6th, 1930, a radically new form of radio was broadcast over the Berlin airwaves. A manifestation of the utopia of sensory estrangement, an 11 minute, 20 second long montage of raw sounds greeted listeners accustomed to hearing news reports, occasional classical musical programs and, only very recently, literary works written specifically for radio performance, the nascent genre known as *Hörspiel* ("radio drama"). This startling work was *Weekend*, an audio documentary created by Walter Ruttmann, an avant-garde artist best known for his experimental filmmaking, most famously, his 1927 production *Berlin — Sinfonie einer Großstadt*.

Weekend marks a milestone in the history of media arts as a first significant experiment in montage-based radio and the first audio-driven urban database documentary. The piece consists of six "movements," transpiring from Saturday afternoon at the factory through a night out, a "pastoral" Sunday, and finally the city returning to work on Monday.¹⁰ Ruttmann gathered his database of sounds by driving around Berlin in a van with a hidden microphone, stopping at locations such as train stations, factories, and busy streets to record the uninhibited, rhythm of the city. For Ruttmann's *Hörspiel*, the city of Berlin itself was the main actor, avoiding any traditional theatrical performers like other literary *Hörspiele* of the time.¹¹ Ruttmann's limited time recording in the studio was used to capture a few notes of classical instruments such as the violin and piano, but also to record the "playing" of non-traditional instruments such as a saw and hammer. Ruttmann recorded all of the material onto Tri-Ergon sound film, the Berlin company that pioneered the synthesis of sound and image technology in Europe. To understand

¹⁰ The six movements are I "Jazz of Work" (*Jazz der Arbeit*); II "Closing Time" (*Feierabend*); III "Journey into the Open" (*Fahrt ins Freie*); IV "The Pastoral" (*Pastorale*); V + VI "Return to Work" (*Wiederbeginn der Arbeit*).

¹¹ Walter Ruttmann, "Berlin als Filmstar," in *Berliner Zeitung*, September 20, 1927. Re-printed in *Walter Ruttmann. Eine Dokumentation*, ed. Jeanpaul Goergen (Berlin: Freunde der Deutschen Kinemathek, 1989), 79.

the significance of editing and montage in Ruttmann's work, one need only look at the amount of film processed from the beginning to the final product. After recording, Ruttmann had amassed 2000 meters of film, and the final piece was only 250 meters long, stitched together from 240 individual segments.¹²

This editing process highlights the database-driven nature of montage-based media practice — filmic, auditory or otherwise. As Lev Manovich writes, “During editing, the editor constructs a film narrative out of this database, creating a unique trajectory through the conceptual space of all possible films which could have been constructed. From this perspective, every filmmaker engages with the database-narrative problem in every film, although only a few have done this self-consciously.” In the case of Ruttmann, the aesthetic choice to use montage in the medium of sound is a self-conscious strategy to foreground the database documentary character of *Weekend* and to deploy a radically new approach to the sonic medium in order to foster sensory estrangement.

The first minute of *Weekend*, part of the "Jazz of Work" section, gives a strong impression of the overall work. Ruttmann opens with a growing sequence of gongs, spliced together at metric intervals, eventually growing in a crescendo into the sound of a factory machine, followed immediately by the repeated cuttings of a saw and a hammer, both also operating at the same rhythm and meter. Then, a church bell sounds, and the machine returns for a more extended sequence, pulsating at a higher level. The act of detailed editing is now very clear: quick cuts to a few beats of the hammer and then back to the machine, a few cuts of the saw and then back to the whirl of the machine. Another church bell sounds. We hear a car start. A

¹² Antje Vowinckel, *Collagen im Hörspiel. Die Entwicklung einer Radiophonen Kunst* (Würzburg: Königshausen und Neumann, 1995), 60.

sequence of high-pitched notes on the violin. A single key of the piano. Then, a man's voice, muffled like on a telephone. "Hallo Fraülein." Quick cut to the clicking coins of an opening cash register. "Bitte Dönnhof zwoundvierzig vier null." Cut back to the cash register. The conversation is then broken, we hear a child's voice, and then the thumping engine of a car driving. The spoken fragments are treated first as independent sonic elements, and secondarily as narrative tools. Altogether, the first minute of *Weekend* is a whirlwind of acoustic experiences, giving a highly visceral sense of the modern industrial city, the texture of its inhabitants' voices, and its web of transportation and communication networks.

It is not surprising that Ruttmann, a pioneer of montage and database documentary aesthetics in film, instigated this innovation in the sphere of sound. To understand *Weekend*, one must also understand Ruttmann's earlier urban documentary, *Berlin: Sinfonie einer Großstasdt*. In *Berlin*, Ruttmann had already illustrated the potential for applying montage techniques towards the representation of urban life. For over a year, Ruttmann traveled around the city in a van with a concealed camera, much as he would do with the microphone for *Weekend*. He then took this mountain of material, and through extensive editing, produced the final work that portrays the diverse life of the city from dawn until night. The film progresses from its opening shots of trains arriving into the metropolis before the city has fully awakened to final images of fireworks culminating a celebratory evening. Throughout, Ruttmann deploys sophisticated montage techniques, creating juxtapositions and transitions along conceptual and formal lines. Albeit a symphony, *Berlin* was a silent film. But Ruttmann's subtitle *sinfonie* hints at his larger interest in sound and musicality.

While groundbreaking on many fronts, I am most interested in Ruttmann's attempt to represent the urban experience in a purely sonic form through documentary recordings. A unique

affordance of the database as an aesthetic structure is the potential for richly articulating the multidimensionality of sensory experience. The database allows an artist to parse out a work into its constituent parts, always retaining a sense of wholeness, while enabling individual fragments to retain their autonomy. Importantly, it is not simply that a work is broken into parts, but it is important that these parts can be experienced and modified on their own. Each definition of a word in *ABCDF* is its own atomic unit, whether that definition is a single image, audio clip, video or collection of forty photographs. Coherence is achieved through the overarching database design. The same applies to each clip Andersen uses in *Los Angeles Plays Itself*. Vertov's scene in the editing room of *Man with a Movie Camera* exposes film's reliance on the discrete celluloid frame as its structural foundation, and the intertitles of *Moscow* structure the individual segments of the film. It is this unique relationship between the parts and the whole that distinguishes the aesthetic character of the genre.

Weekend is clearly connected to Ruttmann's experiments in *Berlin*, and together they represent a unique approach to documenting the city that gives attention to the distinct sensory elements that constitute urban experience. For as Fran Tonkiss writes, "The modern city, for all that there is to see, is not only spectacular: it is sonic."¹³ It is precisely this interplay between the visual and the aural in the context of urban space and its representation through montage that makes Ruttmann's work so compelling. Cultural geographer Gerald Pocock writes, "[Sound] is dynamic: something is happening for sound to exist. It is therefore temporal, continually and perhaps unpredictably coming and going, but it is also powerful, for it signifies existence, generates a sense of life, and is a special sensory key to interiority." In the context of ever-

¹³ Fran Tonkiss, "Aural Postcards: Sound, Memory and the City," in *The Auditory Culture Reader*, ed. Michael Bull and Les Back (Oxford: Berg, 2003), 304.

increasing fears of technology's domination of human perception, Ruttmann's explicit engagement with the auditory faculty's "key to interiority" demonstrates a unique practice of sensory estrangement. One of the most common characteristics of contemporary urban database documentaries is the ability to filter media according to type, so that one may isolate the sonic experience of place from the visual, and vice-versa. Ruttmann's *Weekend* demonstrates that it was already a key aesthetic strategy of the urban database documentary at the beginnings of the 20th century to isolate specific sensory modalities in the context part of a larger structure.

Ruttmann's "Blindness": Towards New Radio Geographies

In interviews and his own writings, Ruttmann repeatedly called *Weekend* a "blind film," a highly adept and evocative description.¹⁴ In Rudolf Arnheim's 1936 study of radio, he locates the medium's unique artistic possibilities in its absence of sight. He writes, "The particular development of wireless towards its real essentials begins, then under the influence of its blindness."¹⁵ While much of the early discussion surrounding radio focused on its potential for political agitation through mass communication, Arnheim was one of the first theorists to approach the medium aesthetically, to explore "wireless as a means of expression."¹⁶ Dr. von Boeckmann, one of the heads of radio in Germany, saw the medium as sensorially deficient in its lack of imagery, and that to compensate, producers should focus primarily on helping listeners imagine pictures in their mind.¹⁷ Instead, Arnheim believed radio was most powerful when it leveraged its uniquely non-visual character, its "blindness," creating its own aural world rather

¹⁴ "Jerzy Toeplitz im Gespräch mit Walter Ruttmann," in *Wiadomosci Literackie* 28 (1933): 499. Re-printed in *Walter Ruttmann. Eine Dokumentation*, ed. Jeanpaul Goergen (Berlin: Freunde der Deutschen Kinemathek, 1989): 90.

¹⁵ Rudolf Arnheim, *Radio*, trans. Margaret Ludwig and Herbert Read (London: Faber and Faber, 1936): 176.

¹⁶ *Ibid.*: 14.

¹⁷ *Ibid.*: 136-137.

than striving foremost to convey visual pictures.¹⁸ For Arnheim, the key to successful radio is work focused on the unique nature of the medium, its renunciation of the eye. He writes,

The wireless artist must develop a mastery of the limitations of the aural. The test of his talent is whether he can produce a perfect effect with aural things, not whether his broadcast is capable of inspiring his listeners to supplement the missing visual image as realistically and vividly as he can.¹⁹

Arnheim did not deny that listeners would indeed foster images in their mind, but he wanted to secure a space within the medium for purely sonic experimentation, where the affect would be emotional and non-literal as in music. In the context of urbanism, Ruttmann's primary site of experimentation, it is the ubiquitous sounds of daily life that perform this affective work. The sounds of the city, rarely perceived intentionally, suddenly become "non-literal as in music."

For Arnheim, it is radio's space outside of vision's hegemonic position that makes it so powerful, as it can help to destabilize our normalized sensory state. He writes, "The sensory preponderance of the visual over the aural in our life is so great that it is very difficult to get used to considering the aural world as more than just a transition to the visual world."²⁰ Ruttmann immerses listeners in the auditory landscape of the city, foregrounding the aural qualities of phenomena often represented visually.

While the basis of *Weekend* is its rejection of traditional visual representation, the work should not be seen in exclusively aural terms. Like the lived experience of the city, Ruttmann creates a rich, multisensorial environment. Writing from the field of art history and visual studies, W.J.T. Mitchell argues, "There are no purely visual media because there is no such thing

¹⁸ Ibid.: 176.

¹⁹ Ibid.: 136.

²⁰ Ibid.: 136 and 195.

as pure visual perception in the first place."²¹ For Mitchell, there is no such thing as "reified sensory labels such as 'visual,' 'aural,' and 'tactile,'" but instead that "the specificity of media...is, rather, a question of specific sensory ratios that are embedded in practice, experience, tradition, and technical inventions."²² Mitchell's approach is supported by recent discoveries within neuroscience. Oliver Sacks writes that "there is increasing evidence...for the extraordinary rich interconnectedness and interactions of the sensory areas of the brain, and the difficulty, therefore, of saying that anything is purely visual or purely auditory, or purely anything."²³

Mitchell also highlights how often multiple media are "nested" within each other, for example when a television program is treated as the subject of a film.²⁴ *Weekend* demonstrates the effectiveness of such an approach to media analysis. In *Weekend*, the sound of the saw does not evoke an image of a saw. Instead, the sound functions independently, rhythmically, musically. The sound of a train, though, is more recognizable and is not spliced and repeated like an independent note. The rhythm of the train is the actual rhythm of the train, as it operates in the city. However, Ruttmann subverts a purely literal representation by embedding the sound of the train in the overall montage as another musical component. It is, in Mitchell's terms, thereby "nested."²⁵ The blindness of the medium remains foregrounded, while the visual is not entirely suppressed. *Weekend*, effectively utilizing the unique potential of radio, offers a context for the sighted to become temporarily blinded. It is this temporary blindness that is the utopia of sensory estrangement, the longing to use technical media to re-sensitize ourselves to our surroundings

²¹ W.J.T. Mitchell, "There Are No Visual Media," in *Journal of Visual Culture* 4.2 (2005): 264.

²² Ibid.: 261.

²³ Oliver Sacks, "The Mind's Eye: What the Blind See," in *Empire of the Senses*, ed. David Howes (New York: Berg, 2005): 33.

²⁴ Mitchell, "There Are No Visual Media": 262.

²⁵ Ruttmann's unique talent for such nesting is also evident in the opening scene of the *Berlin* film. The shots showing the approach of the train into the city's center are intensely rhythmic, evoking not only a visual tempo, but simultaneously stimulating a sonic cadence in the viewer, even though the work is silent.

and increase awareness of details in everyday life. Ultimately, the fundamental strength of *Weekend* is its power to evoke sensitivity to the sonic landscape of the city and "a fresh perception of the world." And perception and sensorial experience of the world is always linked to the body, because it is the locus of all sense organs and the brain, as well as our immediate means for movement and exploration of the environment. Cultural geographer Paul Rodaway writes, "Geographical experience is fundamentally mediated by the human body, it begins and ends with the body."²⁶

Ruttman's *Weekend* actively engages the dual notions of hearing and listening. Rodaway delineates the difference latent in these related, yet distinct terms. He writes, "To hear is to register auditory sensation or vibration. To listen is to pay attention to auditory phenomena."²⁷ *Weekend* directly confronts this dynamic between passive and active, as it effectively transforms that which is normally only heard into something to which to listen. In other words, *Weekend* helps train a more effective listening, such that "a mere cacophony or noise can become a delightful music — a symphony of nature or an urban tone poem."²⁸

One of the most remarkable stories of intentionally cultivating a heightened auditory sense is the life of John Hull, documented in his memoir *Touching the Rock: An Experience of Blindness*. A professor of religious education, Hull had developed cataracts at the age of thirteen, losing sight in left eye four years later, and ultimately going completely blind at the age of forty-eight. Initially distressed by his loss of sight, Hull came to adopt his new condition with great passion, theorizing a form of "deep blindness" that facilitated a fuller development of his other

²⁶ Paul Rodaway, *Sensuous Geographies* (New York: Routledge, 1994): 31.

²⁷ Rodaway, *Sensuous Geographies*: 97.

²⁸ *Ibid.*: 97.

senses, in particular hearing.²⁹ In his diary Hull writes,

The idea of a nice day is largely visual. A nice day occurs when there is a clear blue sky.... For me, the wind has taken the place of the sun, and a nice day is a day when there is mild breeze. This brings into life all the sounds in my environment. The leaves are rustling, bits of paper are blowing along the pavement, the walls and corners of large buildings stand out under the impact of the wind, which I feel in my hair and on my face, in my clothes.³⁰

Like many 20th century cultural critics³¹, Hull identified a sense of sight with a potential for dominance over its object. He writes,

The evil eye has power over the world, but nobody every heard of an evil ear... The ability to close one's eyes represents the power one has over things that are seen, the power to exclude. Hearing, however, is always receptive, whether to sound or to silence. You can look away, but you cannot listen away.³²

In contrast to a mode of being dominated by sight, Hull revels in a consciousness attuned to the receptive nature of auditory perception.

Hull's trained "deep blindness" is a remarkable story, but by no means represents the experience of all those who lose their ability to see. However, his ability to train the development of his auditory faculty illustrates the strength of Arnheim's notion of "blindness" in radio. Radio's unique position within the media arts is its ability to temporarily induce its listeners in a state of blindness, helping them to cultivate sensory estrangement through de-familiarized modes of sonic perception, thereby challenging people's normalized sensory state and revealing the contingency of the sensorium itself.

In "Author as Producer," Walter Benjamin detailed the unique potential of documentary montage, drawing parallels with Bertolt Brecht's theories of Epic theater and the

Verfremdungseffekt. He writes:

²⁹ Ibid.: 26.

³⁰ Jeff Hull, *Touching the Rock: An Experience of Blindness* (London: SPCK Publishing, 1990): 12.

³¹ Here I am thinking of the intellectual history in Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley: University of California Press, 1993).

³² Hull, *Touching the Rock*: 126.

Epic theater, as you see, takes up a procedure that has become familiar to you in recent years from film and radio, literature and photography. I am speaking of the procedure of montage: the superimposed element disrupts the context in which it is inserted.... It is not brought home to the spectator but distanced from him. He recognizes it as the real situation — not with satisfaction as in the theater of Naturalism, but with astonishment. Epic Theater, therefore, does not reproduce situations; rather, it discovers them.³³

After listening to Ruttmann's montage of trains, children's voices, cash registers, machines, automobiles and the other sonic elements of this weekend in Berlin, one's perception of the city is changed. Per Benjamin, montage represents the urban landscape not in the language of "Naturalism" but astonishment. It is Ruttmann's varied approach to documentary material, used both to evoke real urban phenomena and abstracted as musical sound, that draws the listener's imagination into a discovery of the multisensorial nature of urban space and re-frames ordinary experience. Ruttmann's *Weekend* uses the structure of the database to cultivate a heightened sense of presence and listening in the urban environment.

Montage, Documentary Arts and the Sensorium: *Weekend* in the Context of the European Avant-Garde

Ruttmann did not discuss *Weekend* extensively, but he did write a brief description of the piece. He said, "*Weekend* is a study in sound-montage.... In *Weekend* sound was an end itself."³⁴ These two short statements help to open a brief tour of the historical context in which the piece was developed. *Weekend* follows almost twenty years of experimentation with sound and montage across multiple media in the European avant-garde. Some of the earliest provocation in

³³ Walter Benjamin, "The Author as Producer," in *Selected Writings*, eds. Michael Jennings, Howard Eiland, and Gary Smith, trans. Rodney Livingstone et al., Vol. 2, part 2 (Cambridge: Harvard University Press, 1999): 778.

³⁴ "Jerzy Toeplitz im Gespräch mit Walter Ruttmann," in *Wiadomosci Literackie* 28 (1933): 499. Re-printed in *Walter Ruttmann. Eine Dokumentation*, ed. Jeanpaul Goergen (Berlin: Freunde der Deutschen Kinemathek, 1989): 90.

the sonic arena was from the Italian futurists Marinetti, Russolo and Pratella. In 1913, Russolo wrote: "Let us travel together across a great modern capital, ears more attentive than eyes, and we will vary the pleasure of our sensibility in distinguishing the gurgling of water, of air, of gas in metal pipes."³⁵ Russolo constructed enormous, strange instruments for playing the sounds of the city, and authored a manifesto entitled *The Art of Noise*. Russolo's theories of "*bruitismo*" had a strong impact on the Dada artists in Zürich a few years later, who performed "noise concerts" ("*le concert bruitiste*"). These loud nights lead the Dadaists to further experiments with sound poems, where the sound of the voice took precedence over the meaning of the words.

Weekend was also developed in the context of widespread experiments into the representation of the rapid changes instigated by mass industrialization and modernization. In 1919, during his early work with abstract painting, Ruttmann recognized this. He wrote, "The specific character of time today is foremost brought forth through the 'tempo' of our times."³⁶ Montage was seen as a particularly adept technique for illustrating these jarring, dynamic transformations. Describing Hannah Höch's famous 1919 *Cut with a Kitchen Knife*, Maud Levin writes, "The power of Dada is signified, on several levels, by movement; Dada is a destabilizing force. In addition to the formal echoing of the wheels and roller bearings, the dynamic action of the compositional design is paralleled iconographically by images indicating movement, either by machines or female dancers or revolutionary scenes."³⁷ Dadaism's use of montage further overlapped with Ruttmann's practices in its use of documentary materials. As Walter Benjamin

³⁵ Quoted in Georges Sadoul, "Dziga Vertov," in *Cahiers du Cinéma*, (May/June 1970): 19. This translation is by Lucy Fischer in her article "Enthusiasm: From Kino-Eye to Radio-Eye" in *Film Quarterly*, Vol. 31, No. 2 (Winter, 1977-78): 26.

³⁶ Walter Ruttmann, "Malerei mit Zeit," in *Film als Film*, eds. Birgit Hein and Wulf Herzogenrath (Stuttgart, 1977): 63-64. Re-printed in *Walter Ruttmann. Eine Dokumentation*, ed. Jeanpaul Goergen (Berlin: Freunde der Deutschen Kinemathek, 1989): 74.

³⁷ Maud Levin, *Cut with the kitchen knife: the Weimar photomontages of Hannah Höch* (New Haven: Yale University Press): 23.

writes, "The material of the montage is anything but arbitrary. Authentic montage is based on the document. In its fanatical struggle with the work of art, Dadaism used montage to turn daily life into its ally."³⁸ And while Ruttmann's practice follows the same algorithmic temporal logic of city symphonies, it underscores the significance of human editing in contrast to automation.³⁹

The City as Database of Sensory Experiments in Ruttmann and Vertov

One of the filmmakers of the 1920s and 1930s who has received critical attention for his work using montage, documentary, and sound to represent urban experience is Soviet director Dziga Vertov. He is often grouped with Ruttmann in historical studies of urban documentary film, as his most famous work, *Man with a Movie Camera* from 1929 traces the day in the life of Soviet cities, much like Ruttmann's earlier *Berlin* film. While there are significant differences between Vertov's and Ruttmann's work, especially the revolutionary politics that were fundamental to Vertov's project, I believe Vertov's theoretical writings and artistic output can help interpret Ruttmann's work.

Vertov and his fellow Kinoks believed that the essence of the camera was its ability to capture things in the world that the human eye could not see itself. Outlining the fundamental theory of his philosophy of film, Vertov wrote:

The main and essential thing is: The sensory exploration of the world through film. We therefore take as the point of departure the use of the camera as a kino-eye, more perfect than the human

³⁸ Walter Benjamin, "The Crisis of the Novel," in *Selected Writings*, eds. Michael Jennings, Howard Eiland, and Gary Smith, trans. Rodney Livingstone et al., Vol. 2, part 1 (Cambridge: Harvard University Press, 1999): 301.

³⁹ For a further elaboration of my definition of algorithm and its distinction from automation, see Chapter 1.

eye, for the exploration of the chaos of the visual phenomena that fills space.⁴⁰

Vertov was interested in using modern recording technologies to facilitate a critical awareness of the limits of human perception — media serving to open new avenues of sensory estrangement. In *Man with a Movie Camera*, Vertov represents not only the cities of Moscow, Odessa and Kiev, but also reflects directly upon the making of the film itself, consistently including the camera, cinematographer, and editors themselves in montage sequences. For the viewer, although most of the footage is clearly drawn from the everyday life of the Soviet metropolises, there is no question that the film is not equivalent to the reality of the city, but instead constructs its own artificial reality. The film folds in upon itself as an inquiry into the ontological basis of cinematic representation. Moreover, by exposing the database-driven process of filmmaking itself and aspiring to use media to foster greater attention to detail in the context of a larger structure, *Man with a Movie Camera* is deeply symptomatic of the utopia of sensory estrangement. At its core, the film suggests a utopia that combines unbridled optimism for embodied media technology with a simultaneous criticality of media's artificiality.

Film theorist Annette Michelson argues in her classic 1972 essay "From Magician to Epistemologist: Vertov's *Man with a Movie Camera*" that this unveiling of cinematic illusion is what drives Vertov's work. She writes,

We must then, looking at *The Man with the Movie Camera*, see, in that eye reflected by the camera lens, Vertov as defining — through the systematic subversion of the certitudes of illusion — a threshold in the development of consciousness. "Rendering uncertainty more certain," he invited the camera to come of age, transforming with a grand cartesian gesture *The Man with a Movie Camera* from a Magician into an Epistemologist.⁴¹

⁴⁰ Dziga Vertov, *Kino-Eye: The Writings of Dziga Vertov*, ed. Annette Michelson, trans. Kevin O'Brien (Berkeley: University of California Press, 1984): 15.

⁴¹ Annette Michelson, "From Magician to Epistemologist: Vertov's *Man with a Movie Camera*" in *Artforum* (New York), March 1972. My quotation is taken from a re-printing in *The Essential Cinema: Essays on Films in the Collection of Anthology Film Archives*, ed. P. Adams Sitney (New York: Anthology Film Archives and New York University Press, 1975): 111.

Immersion in the flux of the city, its uncertainty, thus becomes an object of utopian desire.

For Manovich, Vertov is possibly the greatest “database filmmaker” of all because the foundation of *Man with a Movie Camera* is exposing the database-driven nature of filmmaking. Manovich writes, “Although I pointed out that film editing in general can be compared to creating a trajectory through a database, in the case of *Man With A Movie Camera* this comparison constitutes the very method of the film. Its subject is the filmmaker's struggle to reveal (social) structure among the multitude of observed phenomena. Its project is a brave attempt at an empirical epistemology that has only one tool: perception. The goal is to decode the world purely through the surfaces visible to the eye. Of course, its natural sight enhanced by a movie camera.”⁴² Thus, in the hands of Vertov, a database, often thought of as a static and “objective” form, becomes dynamic and subjective.

Why do Vertov and Ruttmann choose to use the city as their subject? They both recognize that the city itself can be interpreted as a highly complex, ever-changing database waiting for new forms of navigation to be layered upon it. In a basic conception, the schema of a city as database might consist of physical matter (e.g. buildings, objects), human actors (e.g. people), non-human actors (e.g. animals, insects), historical memory (e.g. the infinite perspectives from the past on human activity at a specific place), sensory experiences (e.g. sounds, smells, images), and infrastructural networks (e.g. sewers, trains). All of these categories might be associated with metadata such as specific

⁴² Ibid., 240.

geographies, times of day, shot angles, visual tricks, etc. *Man with a Movie Camera* and *Berlin* are in effect a compendium of these different cells, organized through multiple intersecting narrative trajectories.

From the beginning, like Ruttmann, Vertov was not only interested in the perceptual potentialities of film and vision, but also sound and hearing. In 1916, Vertov created a "Laboratory of Hearing" in order to perform Futurist-influenced sound experiments, but the technology of a wax disc recorder was not yet sophisticated enough to do the types of real-world recording and editing he imagined.⁴³ Vertov also wrote specifically about radio in dialogue with film, also seeing the medium as a tool for stimulating new perceptions of the world, while recognizing sound and hearing as its basis. He wrote, "My path leads to the creation of a fresh perception of the world. I decipher in a new way a world unknown to you. Once more let us agree: the eye and the ear. The ear does not spy, the eye does not eavesdrop. Separation of functions. Radio-ear — the montage "I hear!" Kino-eye — the montage "I see!"⁴⁴ So it is no surprise that shortly after completing *Man with a Movie Camera*, Vertov moved on to experiments with the nature of sonic representation. This work had a similar aim "to break the naturalistic illusion of the sound medium," and was directly influenced by Ruttmann.⁴⁵

Ruttmann's work was familiar to the Soviet avant-garde, including *Weekend*. Hans Richter, a member of the Zürich and Berlin Dada groups, was an early friend of Ruttmann's, as they worked together in pioneering abstract film in the late 1910s and early 1920s. In his memoirs of the Weimar era *Köpfe und Hinterköpfe*, Richter describes in detail his opinion of

⁴³ Lucy Fischer, "Enthusiasm: From Kino-Eye to Radio-Eye," in *Film Quarterly*, Vol. 31, No. 2 (Winter, 1977-78): 26.

⁴⁴ Vertov, *Kino-Eye*: 18.

⁴⁵ Fischer, "Enthusiasm: From Kino-Eye to Radio-Eye": 28.

Weekend and the work's reception by Russian film icon Vsevolod Podovkin. Richter writes,

In an entirely new approach to audio, Walter Ruttmann created a sound montage *Weekend* for German radio, and he played this work for Podovkin. Podovkin's response was characterized by an over-enthusiastic temperament, that was not only excitement for Ruttmann's work, but he flatly declared that in *Weekend* Ruttmann had resolved the problem of sound in the most spontaneous and basic way through his technique of associated montage. Even seen from today, one cannot disagree with Podovkin's judgment. By not treating sound naturalistically as had become common in sound-film — that means, when the mouth opens and moves, then words must come out — but instead treating sound creatively and musically, Ruttmann had in fact established the artistic domain for the sound-film. From isolated sonic impressions he created new unities: from the scrambling and pushing of people at the train station; the clatter of the trains, the stomping, singing, and cursing, snoring, playing, and quarreling of the travelers, to the silence of the landscape, only broken up by the whispering of lovers and crying children being taken home — everything in sound strung together like a pearl necklace. In this way Ruttmann had indeed created a masterpiece.

With the introduction of sound, many directors and theorists had become concerned with the potential loss of artistic experimentation that had prevailed during film's silent era. Many feared, rightfully so, the naturalization of film through sound, the exact opposite of Ruttmann's approach in *Weekend*, as Richter recognized.

Although operating in different political circumstances, Podovkin recognized the power of Ruttmann's *Weekend* to further the montage project initiated by the Soviet avant-garde. In his recounting of Podovkin's encounter with *Weekend*, Richter continues,

Ruttmann's technique of associative montage was in principle nothing other than the transfer of Russian image montage to sound. That Ruttmann had made this step was his extraordinary achievement. Ruttmann's action kept alive the creativity of the new medium that the whole Russian film generation had built up for over ten years, as they had been able to develop film as an art to a never previously achieved height. In this way, the new art of montage that was threatened with the introduction of sound, had been saved by Ruttmann on the grounds of sound itself. The development then that the Russian greats Vertov, Kuleshov, Eisenstein, Podovkin, Dovjenko had initiated, could now continue to grow uninhibited, now even encouraged by these new impulses.⁴⁶

To be fair, Ruttmann's use of montage on purely sonic ground was not simply a transfer of Russian montage techniques. Indeed, as we have noted, *Weekend* must be understood in relation to Ruttmann's earlier *Berlin* film, where he refined visual techniques of montage that directly

⁴⁶ Hans Richter, *Köpfe und Hinterköpfe* (Zürich: Verlag der Arche, 1967): 156-157. Translation from the German by the author.

apply to his work in sonic montage. As Podovkin hints, Ruttmann's innovation was indeed shortly picked up by Vertov himself. In 1931, he produced the Soviet Union's first sound film *Enthusiasm: Symphony of the Donbas*. The work effectively combined his efforts in visual and sonic montage, as the soundtrack was recorded independently, but scored in piercing dialogue with the images. Describing the project, he wrote "the primary, the particular significance of *Enthusiasm* lies in its decisive resolution of the issue of the possibilities and impossibilities of documentary sound filming on location."⁴⁷ In her essay "*Enthusiasm: From Kino-Eye to Radio-Eye*," Lucy Fisher argues, "Vertov intended for us not to be referred to the space of the film, but rather to the space of the outside world. This statement may seem confusing and paradoxical in that *Enthusiasm* in no way seems to replicate our impression of reality." Although written about *Enthusiasm*, her argument can also be applied to Ruttmann's *Weekend*, as it a clear precursor to Vertov's work. Fisher continues her analysis of the implications for documentary and the aesthetics of sensory estrangement:

But this is not paradoxical if one recalls that for Vertov the notion of documentary in no way implied a document of the human experience of the world, one confined by an imperfect biological perceptual apparatus and bodily limitations of time and space.... The purpose of this liberation from human experience (and thus the rationale for a complexity of technique) was to afford the viewer a conceptual knowledge unavailable to him in his normal perceptual state, to allow him to "decipher in a new way the world unknown to him."⁴⁸

For Vertov and Ruttmann, the crucial aim of their database-documentary work is to foster sensory estrangement. Montage, as a crucial aesthetic technique of database-driven practice, aims to generate new forms of perceptual understanding, de-familiarizing often-overlooked details of the environment and opening up new public spaces for negotiating ambiguity. Whereas today, the notion of documentary has become laden with claims to objectively represent truth, the discourse around documentary representation in the 1920s recognized the necessarily

⁴⁷ Vertov, *Kino-Eye*: 107.

⁴⁸ Fischer, "*Enthusiasm: From Kino-Eye to Radio-Eye*": 33.

subjective nature of any documentary work.⁴⁹ The emphasis of artists like Ruttmann and Vertov was not on capturing and representing a supposedly fixed reality, but instead using media to facilitate a critical consciousness about the contingency of human perception.

Urban Database Documentary and Innervation

Ruttmann and Vertov's experiments in sensory estrangement link closely to the thought of Walter Benjamin. Miriam Hansen locates a crucial dimension of Benjamin's thought in his consideration of the sensorium. In particular, she examines his writings on the relationship between humans and modern technology. Ruttmann's approach to documentary, like that theorized by Vertov, uses recording technologies as a means to re-consider the veracity of our sensory perception. As a work produced in the early stages of the new technological medium of sound, *Weekend* must also be understood as an inquiry into the relationship between sound recording as a technological possibility and the unmediated sound perception of human hearing. The crux of Hansen's analysis of Benjamin's theorization of the senses is innervation. She writes,

If there is a key term in Benjamin's efforts to imagine an alternative reception of technology, it is the concept of innervation. Related to the notion of an optical unconscious familiar from the artwork essay, *innervation* refers, broadly, to a neurophysiological process that mediates between internal and external, psychic and motoric, human and mechanical registers.... Innervation as a mode of regulating the interplay between humans and (second) technology can only succeed (that is, escape the destructive vortex of defensive, numbing adaptation) if it reconnects with the discarded powers of the first, with mimetic practices that involve the body, as the "preeminent instrument" of sensory perception and (moral and political) differentiation.⁵⁰

Benjamin recognizes the centrality of the body in constituting subjectivity. As the interface between the internal and external, between the human and the technical, innervation is an

⁴⁹ For more on the Soviet avant-garde notions of the construction of reality via media, see Devin Fore's work on Factography "...."

⁵⁰ Miriam Bratu Hansen, "Benjamin and Cinema: Not a One-Way Street," in *Critical Inquiry* 2 (Winter 1999): 313 and 318.

essential instance for understanding perception in modernity. Patently articulating the utopia of sensory estrangement, Benjamin's notion of innervation paradoxically illuminates the potential numbing effects of technology while simultaneously identifying the liberatory potential of technology to also engender new forms of sensory perception.

It is in *One Way Street* that Benjamin seeks to reactivate the abilities of the body as a medium in the service of imagining new forms of subjectivity.⁵¹ In the passage titled "Madame Ariane: Second Courtyard on the Left" he writes,

For presence of mind is an extract of the future, and precise awareness of the present moment is more decisive than foreknowledge of the most distant events. Omens, presentiments, signals pass day and night through our organism like wave impulses. To interpret them or to use them: that is the question. Cowardice and apathy counsel the former, lucidity and freedom the latter.... But it is not with impunity that these intentions are exchanged, that unlived life is handed over to cards, spirits, stars, to be in an instant squandered, misused, and returned to us disfigured; we do not go unpunished for cheating the body of its power to meet the fates on its ground and triumph. The moment is the Caudine Yoke beneath which fate must bow to the body. To turn the threatening future into a fulfilled "now," the only desirable telepathic miracle, is a work of bodily presence of mind.⁵²

The body and the mind are linked, the whole sensorium is understood as a constellation of "thinking organs." The significance of Benjamin's formulation is that "it reminds us that 'precise awareness of the present moment' is the very condition of possibility of effective agency."⁵³ Benjamin carefully navigates the chasm between techno-utopianism that imagines total disembodiment and techno-dystopianism that rejects all forms of mediation, suggesting an embodied subjectivity that consciously senses technology's numbing effects and its potential to estrange one *for* the world.

⁵¹ Ibid.: 321.

⁵² Walter Benjamin, "One Way Street," in *Selected Writings*, eds. Michael Jennings, Howard Eiland, and Gary Smith, trans. Rodney Livingstone et al., vol. 1 (Cambridge, MA: Belknap Press of Harvard University Press, 1999): 482-483.

⁵³ Hansen, "Benjamin and Cinema: Not a One-Way Street": 326.

Ruttman's *Weekend* likewise suggests a mode of being in the city rooted in a "bodily presence of mind." In *One Way Street* Benjamin also writes, "No imagination without innervation."⁵⁴ Listening to *Weekend* is a visceral experience of innervation itself, and the result is a destabilized imagination, a fulfillment of the utopia of sensory estrangement. While the urban sound fragments that comprise the database of *Weekend* are familiar, they are defamiliarized and made fresh through the act of montage. The modern urban subject accustomed to visualizing space, is invited to hear his or her everyday environment, cultivating a new mode of attentively listening to the city.

⁵⁴ Benjamin, "One Way Street": 466.

Chapter 4

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Deep Mapping Networked Landscapes

Deep mapping is a key modality of the urban database documentary that responds to the utopia of sensory estrangement. Not specifically urban, archaeologist Michael Shanks's work is focused upon landscape, a broader term that addresses both the city and the country, foregrounding the necessarily interwoven forces of natural processes and cultural production. "Deep mapping" is one of the methods Shanks proposes for uncovering and establishing new forms of connection between people and places. According to Shanks, "the deep map attempts to record and represent the grain and patina of place through juxtapositions and interpenetrations of the historical and the contemporary, the political and the poetic, the discursive and the sensual."⁵⁵ In the context of the urban database documentary, deep mapping is an aesthetic strategy to expose the multiplicity of details in our everyday environment, to create new public spaces for addressing the often-overlooked complexity of our surroundings.

For Shanks, the core of archaeology is the interface between materiality and temporality. However, the discipline is not situated in the past, as some would believe, nor is it motivated by a drive to re-construct an imagined history. Instead, archaeology is concerned with the encounter of lived human experience and the past. Like memory, archaeology is performed in the actuality of the present, in a moment necessarily entwined with the past and projecting towards the future. Shanks writes, "Archaeology refers to ruination, the materiality which we are, to an order of temporality by which we are partially constituted. It deals with the gaps between things - the dirt which is trapped between floor tiles."⁵⁶ Concerned with garbage and lacunae, the often-overlooked and seemingly ordinary, archaeology shifts attention to impressions and footprints,

⁵⁵ Michael Shanks and Mike Pearson, *Theatre/Archaeology* (New York: Routledge, 2001): 64-65.

⁵⁶ *Ibid.*

requiring an “ichnography — a science of traces.”⁵⁷ These traces are manifest both in physical space and invisible data streams connected to place. As such, deep mapping can be understood as a means to excavate the traces of what I call networked landscapes.

In Shanks’s thought, such a conception of archaeology coincides with a specific understanding of modernity. Echoing Andreas Huyssen, Svetlana Boym, and others, Shanks argues, “modernity is unthinkable without its museal and archaeological component.”⁵⁸ Going further, Shanks argues that in modernity “we are all archaeologists, even if we don’t realize it. We share now an archaeological sensibility - working on what is left of the past.”⁵⁹ But the archaeological sites of modernity are not only the remains of buildings, the legacy of monuments, the archives of political leaders. Instead, places like “landfill sites are modernity’s ruins,” along with the forgotten corners of the metropolis.⁶⁰

In order for the archaeologist to engage modernity’s ruins, Shanks argues that one must deploy both an “Archaeological Sensibility” and an “Archaeological Imagination.” For him, “Sensibility refers us to the perceptual components of how we engage with the remains of the past. Imagination refers us to the creative component - to the transforming work that is done on what is left over.”⁶¹ The practice of this form of archaeology necessarily combines research and artistic methods, equally committed to historical analysis and projective imagination, requiring traditional forms of academic inquiry and the creative application of new media and modes of

⁵⁷ Michael Shanks, “The Archaeological Imagination,” retrieved from <http://documents.stanford.edu/MichaelShanks/57> on January 10, 2009.

⁵⁸ Michael Shanks, David Platt, William L. Rathje, “The Perfume of Garbage: Modernity and the Archaeological,” in *MODERNISM / modernity*, vol. 11, number 1 (2004): 64.

⁵⁹ Michael Shanks, “Archaeographer,” retrieved from <http://documents.stanford.edu/MichaelShanks/44> on January 10, 2009.

⁶⁰ Shanks, “The Perfume of Garbage: Modernity and the Archaeological”: 67.

⁶¹ Michael Shanks, “The Archaeological Imagination.”

engagement. At its core, the practice is a deep investigation of details and fragments towards the aim of a heightened sensory awareness.

Deep mapping expresses the temporality and sensibility of the archaeological. This implies that the primary time of the deep map is actuality, what Shanks defines as “a return of what is no longer the same, the conjunction of presents.”⁶² Defined as such, actuality is imbued with ambiguity and tension. It is neither past, present, nor future. It is instead a form of “percolating time that folds together the many fragmentary traces of pasts present in any one place.”⁶³ As an expression of memory and place, deep mapping operates in the same temporal dimensions as memory itself, where “there is no bottom line, no horizon, no past-as-it-was, no ordained chronology. There are instead but enfoldings.”⁶⁴

For artists, deep mapping models a form of relational database design, the architecting of rich layerings of interconnected media and information tagged with time and place. The fundamental aim is to foster new forms of sensory experience. The deep map is “a tangent to the past - a vector (from the present) touching the past at the point of sense and then moving off to explore its own course, partaking of actuality, the temporality of memory.”⁶⁵ Deep mapping denies the construction of dualities between past and present, objective and subjective, real and fictive towards the aim of the utopia of sensory estrangement.

Deep Mapping and the Avant-Garde

⁶² Shanks, “The Archaeological Imagination.”

⁶³ Ibid.

⁶⁴ Michael Shanks, “Archaeologies of the Contemporary Past,” retrieved from <http://documents.stanford.edu/MichaelShanks/227> on January 10, 2009.

⁶⁵ Ibid.

The avant-garde of the early twentieth century and deep mapping share similar aesthetic sensibilities. For both, collage and montage are crucial techniques. The practice of collage consists of incorporating actual pieces of material “reality” in an artistic work. Montage is the cutting and reassembling of fragments of meanings, images, things, quotations to create new juxtapositions. Both tactics engender what Shanks calls a “questioning of the notion of representation as finding some correspondence with an exterior reality.”⁶⁶

The quotation as material form and conceptual link is an integral building block for montage. The vast collection of quotations that comprise Benjamin’s *Arcades Project*, a prototypical instance of deep mapping and urban database documentary, creates novel juxtapositions of the dissimilar in order to achieve new insights and understanding. Referring to Benjamin’s explorations, Shanks writes, “This emergence of new meaning depends on the perception of instability, of retaining energies of interruption and disruption - the quotation interrupts the smooth surface or text; it is distracting. The interruption of illusion and distraction by collage sets off allusions through the juxtaposed, montaged elements. So the new understanding comes through contaminated representation rather than pure reference to the depicted subject matter.”⁶⁷ The nineteenth century arcades of Paris serve as Benjamin’s common, allegorical landscape. While the French capital might have been the center of Europe’s transition to modernity, Shanks’s theory of deep mapping opens the possibility for excavating modernity’s ruins on the margins, as well as the center. In this paradigm, such a site as Chase County, Kansas, may become as evocative as Paris.

⁶⁶ Ibid.

⁶⁷ Ibid.

PrairyErth: A Deep Map of the American Prairie

Shanks adopted the term deep map from author William Least Heat-Moon and his book 1991 *PrairyErth (a deep map)*. Densely distributed over 624 pages, *PrairyErth* is a collection of quotations, drawings, stories drawn from newspaper archives, personal narratives, and interviews that brings life to what might at first glance seem to be one of the most boring places in all of America: Chase County, Kansas. Almost a perfect rectangle, the county is defined by the straight lines of the 1785 National Survey. Overgrown by one of the last remaining grand expanses of tallgrass in America, Chase County is typically a blur to drivers speeding along I-35 between Kansas City and Wichita, the state's two largest cities, or those flying overhead along some of the nation's most common cross-country flight paths. Recognizing that "deep maps will be slow," Heat-Moon elected not to bypass this rectangle, a space that appears almost completely blank on standard maps.⁶⁸ Looked at more closely, Chase County is a quintessential border condition, forming the boundary between the wooded east and the open west. Moreover, it is flooded with ruins of America's westward expansion and the living legacy of the nineteenth century, also a crucial period in the nation's evolving modernity. To create *PrairyErth* Heat-Moon adopted the figure "the scavenger," a mode of being that Shanks describes as "recycling bits of the past otherwise discarded, making them live again, finding value where there was none perceived."⁶⁹

Over the course of four extended stays, Heat-Moon accumulated more than thirty months deeply immersed within Chase County. He walked along the 403 miles of the county's gravel roads, passing many nights in his sleeping bag atop the Roninger or Bazaar Hills, in the roofless

⁶⁸ McLucas, "Deep Mapping."

⁶⁹ Shanks, "The Archaeological Imagination."

remains of old schoolhouses, in the homes of some of the 3,053 residents, in the occasional motel. Throughout, he engaged in casual conversation with unemployed farmers, the county's lone barber, elderly women, employees of the area's six gas stations, an eccentric geology professor, disgruntled youth, and the local historian at the single public library, recording these people's stories.

Heat-Moon was confronted with the challenge of how to represent such a heterogeneous collection of knowledge and experience. He writes, "I arrived at this question: should I just gather up items like creek pebbles into a bag and then let them tumble into their own pattern? Did I really want the reality of randomness? Answer: only if it would yield a landscape with figures, one that would unroll like a Chinese scroll painting or a bison-skin drawing where both beginnings and ends of an event are...present."⁷⁰ The least he hoped for was a "topographic map," made up of words that when read would inspire a journey through the region's many miles.⁷¹

During a stint of writing and reflection in his apartment, Heat-Moon covered the floor with the twenty-five, large-scale U.S. Geological Survey maps that represented his landscape of inquiry. Each map was so detailed that "barns and houses and windmills appear."⁷² Together, the maps formed a forty-two-square-foot paper land. As Heat-Moon traversed across the cartographic territory, he recognized a shape that might form a framework for articulating his research. Recounting this revelatory moment, he writes, "While thirteen of the maps contain only narrow strips of Chase, the central twelve hold almost all of it, and their outlines form a kind of grid such as an archaeologist lays over ground he will excavate. Wasn't I a kind of digger of

⁷⁰ William Least Heat-Moon, *PrairyErth (a deep map)* (New York: Mariner Books, 1999): 15.

⁷¹ Ibid.

⁷² Ibid.

shards? Maybe a grid was the answer: arbitrary quadrangles that have nothing inherently to do with the land, little to do with history, and not much to do with my details.”⁷³ With this new form in mind, Heat-Moon would revisit Chase County, walking across it “grid by topographic grid, digging, sifting, sorting, assembling shards, my arbitrary course will be that of a Japanese reading a book: up to down, right to left.”⁷⁴ This grid became an organizing principle for constructing a montage of thousands of fragments, much like the alphabetical ordering offered by the dictionary in Benjamin’s *Arcades Project* or *ABCDF*. While not computerized, the grid is in effect the outermost shell of Heat-Moon’s database design. It is a structural logic that becomes generative.

Walking On, Below and Above the Grid

The form of *PrairyErth* follows Heat-Moon’s journeys across his arbitrary grid. Each book chapter is dedicated to one of the grid’s rectangles, with names such as “Saffordville,” “Gladstone,” “Cedar Point,” and “Elk.” Playfully engaging the aesthetic rigor of the U.S. Geological Survey, there is also a consistent structure across each section. Every chapter opens with multiple pages of quotations drawn “From the Commonplace Book.” These epigraphs are pulled from a vast field of sources, ranging from nineteenth-century accounts of crossing the Kansas prairie, to classical literature such as D.H. Lawrence, to contemporary environmentalist philosophy, to the musings of Walt Whitman, to academic treatises on natural history, to poetic fragments from the work of Joseph Brodsky.

⁷³ Ibid.

⁷⁴ Ibid: 15-16.

It is through these fragmentary thoughts, snatched from the sediment of history and irreverent to disciplinary boundaries, that Heat-Moon articulates his specific position vis-à-vis mapping. On page four, he cites Barry Lopez's *Desert Notes* (1976):

Your confidence in these finely etched maps is understandable, for at first glance they seem excellent, the best a man is capable of; but your confidence is misplaced. Throw them out. They are the wrong sort of map. They are too thin.

The deep map digs below, layering those glances that follow the first. Just below this passage, we read a fragment from Peter Steinhart's 1986 "Names on a Map": "Maps are a way of organizing wonder." Like Shanks, Heat-Moon's conception of the map is not as a form of objective, scientific knowledge, but instead a medium that creates frameworks for expansive site-specific thought and experience. The map is not exclusively representational, but an active agent in opening new potentialities of wonderment.

After the opening montage of thoughts drawn "From the Commonplace Book," Heat-Moon places us "In the Quadrangle," the title for the twelve sub-sections that begin Heat-Moon's narratives. The other sub-sections that follow all are distinctly named, but begin with a spatial preposition. Simply reading the table of contents can provide a summary of the English language's modes of expressing locational specificity and imaginary landscapes:

"*Beneath* a Thirty-Six-Square Grid"
"*Beyond* the Teeth of the Dragon"
"*In* Ecstasy"
"*Underneath* the Overburden"
"*Within* Her Pages"
"*Outside* the Z Bar"
"*Down* in the Hollow"
"*Atop* the Mound"
"*Along* the Ghost Highway"
"*Beside* Coming Morning" "
"*Up* Dead-End Dirt Roads."⁷⁵

⁷⁵ The emphasis on the prepositions is my own.

While not a standard map, *PrairyErth* is truly navigational, its structure providing pathways through stories tied to specific places.

Deep Mapping the Often-Overlooked and “herky-jerky” Temporality

Heat-Moon’s focus upon Chase County is motivated by a desire to counter conventional modes of awareness and representation. He writes, “I began to like [prairies] not because they demand your attention like mountains and coasts but because they almost defy absorbed attention.”⁷⁶ And from the prairies, he acquired a specific pace and mode of engagement that echoes Shanks’s theorization of the deep-mapping archaeologist. Heat-Moon writes, “I learned a prairie secret: take the numbing distance in small doses and gorge on the little details that beckon. It’s not that I had to learn to think flat — the prairies rarely are — but I had to begin thinking open and lean, seeing without set points of obvious focus, noticing first the horizon and then drawing my vision back toward middle distance where so little appears to exist.”⁷⁷

The practice of deep mapping and urban database documentary more broadly perform double movements of estrangement. At once, deep mapping defamiliarizes that which is ordinary by reframing it in a new context. At the same time, deep mapping uses the structural logic of a database to expand the frame by incorporating people, places, and artifacts that are normally omitted. To create deep maps, a mode of sincere receptiveness and patience is essential. As Shanks writes, “An imperative here is to keep open things which are passed over in an instant.”⁷⁸

⁷⁶ Heat-Moon, 27.

⁷⁷ Ibid: 27-28.

⁷⁸ Shanks, “Archaeologies of the Contemporary Past.”

Or, in Heat-Moons' words, "What I cherish I've come to slowly, usually blindly, not seeing it for some time."⁷⁹

PrairyErth articulates the jumbled temporality of the archaeological imagination.

Enmeshed in a description of Cottonwood, the county's largest town (population 966), Heat-Moon writes, "A few days ago, at the crossing of Broadway and Friend Street, I stood with an 1878 bird's-eye-view engraving of the town in my hands and compared it to what I saw, and it was plain that history in Cottonwood proceeds at about the same rate of an hour a year."⁸⁰

Traveling in time and place with Heat-Moon, we the readers are situated in a dense, multimedia imaginary of actuality. The recent past is made tangible through the engraving, viewed from a present conditioned by embodied experience. In this moment, time "moves even slower than the official state reptile, the ornate box turtle."⁸¹ The rate of history is rendered nonlinear and revealed as uneven. Or, as Heat-Moon writes, we become aware of "'the herky-jerky passage of time."⁸²

The art of dreaming is integral to the practice of deep mapping and is a consistent motif through *PrairyErth*. In the Commonplace Book opening the quadrangle of "Thrall-Northwest," Thomas de Quincey is quoted from his 1845 "Suspiria de Profundis": "The machinery for dreaming planted in the human brain was not planted for nothing. That faculty, in alliance with the mystery of darkness, is the one great tube through which man communicates with the shadowy. And the dreaming organ, in connexion with the heart, the eye, and the ear, composes the magnificent apparatus which forces the infinite into the chambers of a human brain, and throws dark reflections from eternities below all life upon the mirrors of that mysterious camera

⁷⁹ Heat-Moon, 81.

⁸⁰ Ibid, 52.

⁸¹ Ibid.

⁸² Ibid.

obscura — the sleeping mind.”⁸³ But it is not only the sleeping mind that can dream. Modes of consciousness also take journeys of fantasy and illusion. Heat-Moon draws us into this specific domain of subjectivity. Guiding us, he writes, “Now: you are dreaming, walking in your dream, here in the hills, alone. If you continue you will find what I have hidden for you, if you want it.”⁸⁴

To walk with Heat-Moon through Chase County one is placed in a constant state of wonderment. While ostensibly non-fictional, the characters of Heat-Moon encounters are also unfathomable. Tom Bridge supposedly grew up on the eastern plains of Colorado during the dust bowl days when “the storm came on like a cliff...hundreds of feet high.”⁸⁵ In 1966, Tom got lost looking for a house to buy in Chase County and stumbled into Saffordville, practically a ghost-town situated “at the bottom of a funnel” that completely floods at least once every year.⁸⁶ Already almost completely vacant from the 1951 flood, Tom found the one banker’s son to ask for directions and shortly thereafter decided to buy a house right in the floodplain, knowing perfectly well that multiple times each year it would be submerged. Over dinner, Tom tells Heat-Moon: “This house is a riverboat that won’t float. I’ll look out a window and see carp jumping on the lawn. Frogs in the basement. Cordwood floating off the porch.... I turn off the electricity if water’s coming upstairs. [My wife] Syble got shocked last time. You’ll feel the electric current in the water, a kind of vibrating: it can kill you.... There’s no question a flood is inconvenient.”⁸⁷ But the Bridges do not have flood insurance. And Syble adds, “Tom calls us collectors who need a flood every so often to clear things out anyway.”⁸⁸

⁸³ Quoted in Heat-Moon, 93-94.

⁸⁴ Heat-Moon, 326.

⁸⁵ Ibid, 35.

⁸⁶ Ibid, 29.

⁸⁷ Ibid, 35.

⁸⁸ Ibid.

Not only is such a narrative seemingly implausible — Heat-Moon does not use quotation marks to distinguish dialogue. Those words that are supposedly not Heat-Moon’s own are merely italicized, flowing smoothly in the body of narrative paragraphs. And the descriptive language used by interview subjects throughout the book is highly evocative and echoes the same turns of phrase and style of Heat-Moon’s personal passages. This conflation calls into question the objectivity of the supposed interviews, establishing a dreamlike atmosphere where everything might actually be an illusion. This phantasmagoric sense is only heightened by Heat-Moon’s meticulous attention to detail. No date is omitted, every person encountered is identified by both first and last name, and all spaces are indelibly described. Moreover, Heat-Moon’s accounts of his own journeys and the stories of others are consistently interwoven with reprintings of newspaper articles from local archives and historic testimonies from the early settlers of Kansas. Like the nineteenth century phantasmagoria, *PrairyErth* establishes a “dialectic at a standstill,” an unresolved tension between truth and illusion, subjectivity and objectivity, deception and liberation, and even life and death. To deep map means to scavenge through the remains of modernity’s ruins, constructing phantasmagorias of our common landscape’s contemporary pasts.

In *The Arcades Project*, Benjamin writes, “Where thinking comes to a standstill in a constellation saturated with tensions — there the dialectical image appears. It is the caesura in the movement of thoughts. Its position is naturally not an arbitrary one. It is to be found, in a word, where the tension between dialectical opposites is greatest.” Urban database documentary targets this position of dialectical tension, this state of sensory friction. The structural logic of the database, an intentionally crafted frame open to infinite entries that can be drawn in relation to each other, provides a context through which to generate such dialectical combustion. The urban

database documentary, as exemplified by works such as *PrairyErth*, strives to catalyze these moments of innervation, experiences of embodied sensory estrangement.

PrairyErth, like *Berlin*, *Weekend*, *Man with a Movie Camera*, *ABCDF* and other examples of the genre, uses the conceptual structure of a database to create powerful moments of montage. For Heat-Moon, the architectural framework of the grid and the commonplace book serve the same aesthetic purpose as the dictionary structure of *ABCDF*. By architecting such a framework, these artists establish coherence for a whole, while allowing the atomic units to retain their autonomy and to be drawn into multiple forms of relation with each other. Each of these works expresses the utopian impulses of kaleidoscopic perception and sensory estrangement, seeking to achieve a total view, while preserving the integrity of fragments, each detail defamiliarized in the context of this new structure. In this way, the dual utopian desires are folded in upon each other. But in the case of *Prairyerth* and *Weekend*, the starting point of the aesthetic structure emphasizes defamiliarization of often-overlooked (or overheard) details of our everyday environment, assembling detailed impressions towards a comprehensive whole.

The Center for Land Use Interpretation's Database of Sensory Estrangements

The Center for Land Use Interpretation (CLUI) is an arts organization founded in 1994. The group has produced dozens of exhibits on land use themes and regions, for public institutions all over the United States, as well as overseas. The Center publishes books, conducts public tours, and offers information and research resources through its library, archive, and website. CLUI has constructed a remarkable interstitial territory mixing artistic methods and the veneer of a traditional public bureaucracy. At the center of their work is the transformation of

perception. The first words that founder Matthew Coolidge writes in *Overlook*, a catalog documenting CLUI's practices are: "What matters is that after reading this book, or after encountering any of our programming elsewhere, you come away with a widened sense of awareness of the physical world that surrounds you." (15) The Center's work is a unique articulation of urban database documentary practice engaged in the utopia of sensory estrangement.

While the database serves as a conceptual architecture in Heat-Moon's deep mapping, a literal computerized database serves as the foundation for CLUI's work. Coolidge defines the unfolding of a 'typical' American life in a database structure, people "moving between such land-use sites as hospitals, houses, schools, parks, roads, parking lots, churches, factories, office buildings, job sites, shopping centers, restaurants, and cemeteries. Such a life might also directly or indirectly be supported by places like landfills, utility corridors, airports, shipping terminals, power plants, subway tunnels, oil fields, bombing ranges, and golf courses." These categories serve as the organizing structure through which CLUI carries out their work. Coolidge writes, "As we stumble over the obvious, we ask ourselves, 'What is that thing anyway, and how did it get there?' The results are compiled, sorted, processed, and stored in our Land Use Database."⁸⁹ The CLUI database, an ever-expanding repository, is the generative structure that drives the group's multiplicity of practices.

The CLUI database is vast, but not exhaustive. It is rigorously curated. "The database is not a collection of everything, but rather a selection from everything. It is an inventory of examples. Its utility would be limited if it were unfiltered and exhaustive - too much information can be as

⁸⁹ *Overlook: exploring the internal fringes of America with the Center for Land Use Interpretation*, edited by Matthew Coolidge and Sarah Simons, (New York: Metropolis Books, 2006): 17.

obfuscating as too little. The Center applies the 'unusual and exemplary' criteria in order to limit the information that is preserved.”⁹⁰ For CLUI, the act of database design and processing is essential to their work. Moreover, the open nature of the database enables CLUI to work collaboratively, as a network of artist/researchers contributing sites to the collection. First started in Los Angeles, CLUI now operates stations in such location as Wendover, Utah on the edge of the Great Salt Lake and Troy, New York. Over the years, hundreds of people have contributed site entries, which include a map, description, tags and images.

The best images within CLUI’s land use database are showcased in their Morgan Cowles archive, an online environment for exploring the vast, eccentric nuggets of The Center’s documentary recordings. The website has a very simple structure: there are 28 photo albums each corresponding to a tag/title. Like Heat-Moon’s chapter titles and Benjamin’s categories in *The Arcades Project*, the list is a form of poetry. “Blank Plaques” includes images from across the country showing overlooks and landmarks where a plaque has been erected but no longer carries information. “Danger” displays images that simply include the word, whether on a sign on a chained link fence barring entry or on cracked concrete on the fridges of an abandoned factory. “Sentiments” are instances of where emotional words are displayed in public, such as “Trust” in LED lights at “The World’s Largest Truckstop” or a sign that reads “Put something concrete in your life,” advertising a concrete manufacturer. Other categories include “Mounds and Piles,” “Mobile Home,” “Outsized,” “Inundation,” “Restrooms,” and “Viewing Devices,” all collections of media that aim to transform perception of often-overlooked features in the landscape and open up new public spaces for interpreting the ambiguity of our environment.

Embodiment is crucial to CLUI’s form of database documentary. While the online

⁹⁰ Ibid., 19.

database is an essential foundation and generative environment, for CLUI, it really is about being physically at these sites. The online database is an alternative guide for self-made tours, of the likes that the organization itself stages on occasion. Coolidge writes, "If we think of the contemporary landscape as a kind of museum, a repository containing some of the material culture of our time, the importance of direct contact with these artifacts of the ground cannot be overstated. We all remember things and places a lot better when we see and touch them ourselves."⁹¹ The Center now is in the process of creating an "American Land Museum," a network of locations across the country where the "exhibits" are the landscape itself. In this way, the online database is returned to physical space, each entry becoming a new landmark, a point on a constantly-growing deep map.

For CLUI, these site-specific database documentary experiences are driven by the utopian impulses of sensory estrangement. Defamiliarization is central to their aim. In language very similar to Shklovsky's original formulation of *ostranenie* in 1918, Coolidge writes, "Repeated travel over the same road increases our familiarity with it, and we think we come to know it better and better. But patterns and ways of seeing can form, regulating our perceptive apparatus in ways that limit our ability to sense the rest of the spectrum. The more we think we know something, more of it becomes lost to us. Experiential habits become common corridors of perception that merge into the superhighways of convention. To avert whatever crisis might be forming in the present and awaiting us in the future, the world needs to maintain its interpretative diversity, along with its biological and cultural diversity. The tool kit needs to be fully stocked."⁹² For CLUI, experimental artistic practice drives the building of such a tool kit and interpretative diversity.

⁹¹ Ibid., 31.

⁹² Ibid., 31.

The Politics of Deep Mapping and Database Documentary Aesthetics

As Shanks writes, “Archaeological evidence frequently provides insights counter to the great narratives of history that we have grown so used to over the last couple of centuries.”⁹³ The practice of deep mapping can help us attend to materiality by saying “look at what has been omitted.”⁹⁴ Historically, what has often been omitted is the commonplace, which gains new perceptibility through aesthetic strategies of estrangement in deep maps such as *PrairyErth* and CLUI’s Land Use Database.

Jacques Rancière, in his *The Politics of Aesthetics*, helps to distill the contours of this politico-aesthetic topography. Rancière examines politics from the perspective of “the distribution of the sensible.” With this phrase, he means “the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and positions within it.”⁹⁵ For Rancière, the sensible is not a static category, but a domain inhabited by constantly shifting definitions of what is common sense. For example, while today for many Christians it is widely believed that the worship of images is not sacrilegious, during previous periods the representation of God was forbidden in vast sectors of society. It is such changing conceptions of prudence that constitute politics, as these shifts entail significant re-formulations of what may be seen, heard, and said, thereby constituting the possibilities (and impossibilities) of individual and collective activity.

An active and ongoing process, “the distribution of the sensible reveals who can have a share in what is common to the community based on what they do and on the time and space in

⁹³ Shanks, “Archaeologies of the Contemporary Past.”

⁹⁴ Ibid.

⁹⁵ Jacques Rancière, *The Aesthetics of Politics*, trans. Gabriel Rockhill (New York: Continuum, 2004): 12.

which this activity is performed."⁹⁶ As with any distribution, the distribution of the sensible establishes edges, demarcating what is proper and who can participate. These edges (and interiors) are conditioned by aesthetic practices. In particular, it is documentary, as defined here via Jameson as a dialectic between reality and its representation, that has the potential to challenge and expand society's distribution of the sensible. Rancière defines aesthetics as "a delimitation of spaces and times, of the visible and the invisible, of speech and noise, that simultaneously determines the place and the stakes of politics as a form of experience. Politics revolves around what is seen and what can be said about it, around who has the ability to see and the talent to speak, around the properties of spaces and the possibilities of times."⁹⁷ Politics is the field within which the distribution of the sensible takes place, and aesthetics are the powers that determine the potentialities latent within this field. From this perspective, Rancière argues, "An aesthetic politics always defines itself by a certain recasting of the distribution of the sensible, a reconfiguration of the perceptual forms."⁹⁸ The genre of the urban database documentary aims to fundamentally redistribute perceptual forms.

The question is not whether a form of art such as the urban database documentary is political. Or whether a certain politics is aestheticized. For Rancière, this is a moot point, as politics and aesthetics are necessarily always entwined. He writes, "Political statements and literary locutions produce effects in reality. They define models of speech or action but also regimes of sensible intensity. They draft maps of the visible, trajectories between the visible and the sayable, relationships between modes of being, modes of saying, and modes of doing and

⁹⁶ Ibid, 12.

⁹⁷ Ibid, 13.

⁹⁸ Ibid, 63.

making. They define variations of sensible intensities, perception, and the abilities of bodies."⁹⁹

Rancière shifts the question away from a vague and misplaced notion of an artwork's political commitment to art's larger role as a vehicle for constructing "regimes of sensible intensity." In this light, the lens becomes whether artistic practices enable opportunities for new voices, images, and practice to be seen, heard, and enacted or whether they increase control of thought, speech, and action.

This is how we may understand the political implications of the urban database documentary. By dislodging entrenched delineations between important and trivial, fact and fiction, objective and subjective — by sustaining the incommensurability of epistemology and aesthetics — the genre contributes to the formation of political subjects that challenge the given distribution of the sensible.

Coolidge acknowledges the political dimensions of CLUI's work in terms echoing Rancière's. He writes, "Filling in blank spots in our collective perceptual field, they call attention to neglected, overlooked, and often highly telling aspects of the American landscape. And once exposed to this information, our everyday picture of the world around us - and our sense of our role in it - can never be the same again. Yet the specifics of how our perspective may change is something that each visitor works out on his or her own. The Center is not interested in lobbying us for a particular point of view or trying to mold our opinions. It simply suggests that things might be different than we had previously thought."¹⁰⁰ The paradoxical utopia of sensory estrangement is at the core of these politics. Coolidge writes, "If the Center has a function - and I am not at all sure it does, at least not in any conventional sense - it might have something to do

⁹⁹ Ibid, 39.

¹⁰⁰ Coolidge and Simons, 40.

with recognizing and celebrating this kind of paradoxical perspective, and with disseminating the idea that trust exists only in conditions of contradiction."¹⁰¹ These “conditions of contradiction” are precisely the new public spaces that estrangement can produce, dialogic environments based on ambiguity, inhabited by those collectively estranged *for* the world, for each other, for a heightened sensory awareness of reality’s artificiality.

Deep mapping and the urban database documentary’s modes of engaging the commonplace are specific to the aesthetic regime of our times. But it is not technological advancement that has made deep mapping and urban database documentary possible. Modernity is in part defined by the development of mechanical arts (e.g. photography and film) and the use of these technologies to, as Rancière says, “confer visibility on the masses.” The historical shift was in part brought about by a re-evaluation of the “honour acquired by the commonplace.”¹⁰² Balzac uncovered the character of an epoch through the features, clothes, and gestures of an ordinary individual. Hugo revealed a civilization through a sewer. As Rancière writes, “All of these forms of cancellation or reversal of the opposition between high and low not only antedate the powers of mechanical reproduction, they made it possible for this reproduction to be more than mechanical reproduction.”¹⁰³ It was not the introduction of new technologies that enabled this new vision of the masses and the concurrent re-definition of mechanical production as a mode of artistic practice. Instead, Rancière offers this eloquent aphorism: “The technological revolution comes after the aesthetic revolution.”¹⁰⁴ The aesthetic works of Balzac and Hugo transformed the boundaries of the visible and invisible, the audible and inaudible, changing the way we see ordinary people and places. In this way, aesthetics condition the possibilities for our use of

¹⁰¹ Ibid., 41.

¹⁰² Rancière, 33.

¹⁰³ Ibid, 32.

¹⁰⁴ Ibid, 33.

technologies, not vice versa. Again, it is not the computer which produces the urban database documentary, but instead the cultural-aesthetic conditions brought about by changes in late 19th century modernity.

In the course of the aesthetic revolution, "the ordinary becomes beautiful as a trace of the true. And the ordinary becomes a trace of the true if it is torn from its obviousness in order to become a hieroglyph, a mythological or phantasmagoric figure. This phantasmagoric dimension of the true, which belongs to the aesthetic regime of arts, played an essential role in the formation of the critical paradigm of the human and social sciences."¹⁰⁵ In this re-formulation of what constitutes the human and social, it is the "phantasmagoric dimension of the true" that gains credence. The world of blurred fact and fiction created by authors such as Heat-Moon and the deadpan documentation of seemingly insignificant locations by CLUI supplants the supposed objectivity of the scientific method. Characters such as Tom and Sibyle Bridge become a new authority. Living ghost towns such as Saffordville, Kansas become visible and audible. Overlooked signs, objects and landscapes across the United States become an alternative museum. In this way, the urban database documentary and the utopia of sensory estrangement becomes a destabilizing force in the aesthetic revolution.

The implications of the redistribution of the sensible enacted by deep mapping and urban database documentary are manifold. As Rancière writes, "Politics and art, like forms of knowledge, construct 'fictions', that is to say *material* rearrangements of signs and images, relationships between what is seen and what is said, between what is done and what can be done."¹⁰⁶ A method for engaging materiality and a distinct form of material itself, deep mapping privileges a confounding of traditional landmarks and the standard intelligibility of history,

¹⁰⁵ Ibid, 34.

¹⁰⁶ Ibid, 39.

geography, and archaeology. The new value and attention accorded the commonplace in the deep map stands in opposition to the traditional maps marking classic landmarks, and instead opens new forms of sensory experience of the commonplace and often-overlooked.

Janet Cardiff's Walks of Sensory Estrangement

While CLUI's tours suggest the power of interweaving their land use database with embodied encounters on site, Janet Cardiff models a mode of urban database documentary that directly ties media to physical location. Cardiff is a Canadian sound and installation artist well known for her audio "walks." Since 1991, Cardiff has been producing these site-specific works in which participants are given a portable CD player with a pre-recorded soundtrack, stereo headphones, and told to press play when standing at a specific spot. Cardiff's walks can be read as further iterations of deep mapping and contemporary echoes of Ruttman's sonic experiments. Cardiff's works, in particular *Her Long Black Hair*, interpret the cityscape as an infinite database of historical and fictional narratives – past, present and future – from which selections are made and overlaid on the physical landscape to foster new sensory encounters.

After beginning a walk, one hears Cardiff's voice giving directions, such as "turn right here" or "go under the stone bridge in the distance." These performative instructions are intermixed with a fictional narrative and layered on a background of sounds, all pre-recorded at the same location as they are heard through the headphones during the walk. In this way, the soundscape mimics the immediate, physical environment, and participants are immersed in a hybrid world that blurs the distinctions between fact and fiction, real and virtual. Difficult to situate in traditional art historical genres, Cardiff's walks are best characterized as "physical cinema," where the show moves out of the theater, the spectator is mobilized and the moving

images become the landscape of the city itself.¹⁰⁷

All of Cardiff's walks are recorded in binaural audio, a technique that uses miniature microphones placed in the position of a person's ears. The result is an incredibly lifelike, spatialized reproduction of sound. Played back on a headset, it is almost as if the recorded events were taking place live. Beyond simply facilitating left and right channels like standard stereo audio, binaural audio allows sound to represent depth and movement. When you hear a bird fly by your left ear, you feel the bird approach, pass by your ear and then leave behind your head. The sensation is so true to your senses that your body tells you that this bird has surely just passed; however, your mind knows that this sound could very well be the recording and not the actual sounds of the space in that moment. When Cardiff first discovered binaural audio, she says she "had found a way to be in two different places at once. I was able to simulate space and time travel in a very simple way."¹⁰⁸ As a listener, you are constantly suspended between your own action and Cardiff's creative control.¹⁰⁹ Much like the viewer of a Cubist painting that must piece together the multiple perspectives of the image, as a listener in Cardiff's walks you ultimately complete the work through your own physical and mental actions.¹¹⁰ Like the city symphony which expresses a utopian desire for kaleidoscopic perception through visualizing multiple perspectives that destabilize the view of the spectator, Cardiff's walks position her participants in perceptual quicksand. The dialectic between reality and its representation at the

¹⁰⁷ The term "physical cinema" is taken from Mirjam Schaub's *Janet Cardiff: The Walk Book* (Köln: Verlag der Buchhandlung Walther König, 2006): 14. This notion of "physical cinema" is also similar to Yve-Alain Bois's description of Richard Serra's *Clara Clara*, when he writes: "The abrupt but continuous succession of views is highly transitive, akin to a cinematic experience." (Yve-Alain Bois, "A picturesque stroll around Clara-Clara," *October* 29 (Summer 1984): 52).

¹⁰⁸ Ibid., 4

¹⁰⁹ This interpretation was aided by colleague Brian House in our co-written paper "Talking About Media, the City, and Human Subjectivity: A Retroactive Manifesto for a Critical Media Arts."

¹¹⁰ *Architecture and Cubism*.

core of Jameson's definition of realism is immediately felt as soon as Cardiff's soundtrack begins.

Cardiff begins *Her Long Black Hair* at Central Park's Sixth Avenue entrance with the proposition: "It's loud here isn't it. When you're in a city like New York, you have to think about the sounds like they are a symphony or you go a bit crazy."¹¹¹ Underneath short statements, you hear a soft sound-bed of occasional honking horns, car alarms, and emergency vehicle sirens. Cars whiz by in your ears at the same pace as cars moving in regular traffic. Although being heard through the headphones, the soundscape is similar to what is taking place in the moment at this busy juncture of Midtown. At first, the real and the virtual mix almost imperceptibly. However, once Cardiff invokes the metaphor of the "symphony," the soundscape slowly begins to grow in pace, sonic density, and magnitude. The volume of different effects rises, and now it's clear that the documentary recordings are being carefully edited to form a rhythmic crescendo. The horns, sirens, and alarms are treated like separate instruments in an orchestra. The composition is noticeably different from what is now actually happening on Sixth Avenue.

Cardiff is playing with the human intuition to look for visual signifiers of sounds one hears. The soundtrack that at first blended in with the immediate surroundings, now jumps out at you, creating a disjuncture between what you see and what you hear. As your eyes dart around the landscape in search of matching phenomena, carefully examining the details of your surroundings, the result is a heightened awareness of your visual and acoustic environment. This mini city symphony ends with the passing of a horse, the large animal's hooves tromping on the pavement from the right ear to the left and then out of the sonic frame. This is a main avenue for

¹¹¹ Audio CD accompanying Schaub's *Janet Cardiff: The Walk Book*. Track 15: 0:30 - 1:25.

the park's famous horse-drawn carriages, and it's very possible that as a listener you will see a horse pass by in this moment. However, it is more likely that a horse does not pass at this precise time, and that the sounds will induce the your imagination to project a horse onto the street. Cardiff is establishing what she calls "a third person, a third world, a mixture between listener and my voice."¹¹² This progressive dissociation and re-association of the real and virtual city accentuates the overlapping sonic spaces in which you now reside as a participant in Cardiff's walk .

Cardiff introduces time as the next dimension of defamiliarization. Whispering in your ear, she says, "I have some photographs to show you. Take out the first one. Number 1 it says on the top right. It was 1965. Almost 40 years ago. Line up the image with the scene in front of us. It's taken from where you're sitting now."¹¹³ As a listener, you take out a black and white picture from an envelope you have been given at the beginning of the walk. In the picture, you see a crowd of older men and women seated in chairs, watching what would appear to be a rally or ceremony. In the background, the photograph shows cars, caught in motion as they drive along Central Park South, in front of the façade of the same building at which you are staring. The image's vanishing point is a sliver of sky at the end of the 6th avenue skyscraper canyon, the same perspective you have from the place you are standing. In the picture, the columns framing the entrance and arches around the windows are grimy. From the vantage point of 2004, the building has been recently refurbished, its façade meticulously sandblasted. While your first intuition is to compare the photograph to the current day, Cardiff counters this by focusing your attention deeper into the image. She says, "The tree is in blossom. And the women's hats. They're all

¹¹² Cardiff, in Schaub: 193.

¹¹³ Audio CD accompanying Schaub's *Janet Cardiff: The Walk Book*. Track 15: 1:30 - 2:10.

wearing them."¹¹⁴ Your eyes dart to the upper right of the photograph, examining the small buds lining the tree branches. You must look really closely to notice the bonnets that adorn so many of women's heads, a detail in this image that would easily be overlooked at first glance.

Simultaneously, you begin to hear the sound of trombones and trumpets. Your first assumption is to look around. Maybe there is a parade today. Your eyes betray you. Where is this sound coming from? Looking carefully into the historic photograph, you see that there is a small brass band in the last row of spectators. Standing on the corner of Sixth Avenue and Central Park South, holding a Discman and a vintage photograph, you are caught between the sound and images of an event at this precise location in 1965 and the reality of the immediate physical environment. Whereas a traditional audio guide aims to transport a listener exclusively back in time, working to eliminate any sense of the present, Cardiff consciously works to place the listener in an in-between state, overlapping the past and the present, both visually and acoustically, emphasizing the temporal complexity of space, rejecting a static separation between history and an ever-changing present. As Mirjam Schaub points out, Cardiff's walks address the interrelationships of time, the real, and the virtual in a way similar to Leibniz's Crystal Palace. She writes, ""For Leibniz, it is only by experiencing the unreal, by being suspended and separated from the world and experiencing the rupture of time, that the real world is revealed to us. In this sense, the virtual realm is constitutive of all that is real."¹¹⁵

Following this opening vignette, the walking begins. Cardiff says, "Get up. Go to the right. Try to walk to the sound of my footsteps so that we can stay together."¹¹⁶ Underneath Cardiff's voice, you hear the syncopated rhythm of footsteps. Although seemingly mundane, this

¹¹⁴ Ibid.

¹¹⁵ Schaub, 242.

¹¹⁶ Audio CD accompanying Schaub's *Janet Cardiff: The Walk Book*. Track 15: 2:17 - 2:30.

sonic detail enables one of Cardiff's most dramatic effects. By inviting you to merge with her virtual body, Cardiff is instigating yet another layer in her complex matrix of sensory estrangement. When you begin to breathe and walk in synch, the distinction between self and other is blurred.¹¹⁷ Throughout the walk, listeners shift between associating Cardiff's voice on the soundtrack with their own, individual voice in their head and the disembodied voice of the artist.

The Performative City

Earlier, we noted that Cardiff's work can be understood as "physical cinema," and Cardiff acknowledges taking many cues from the history of film. Anthony Vidler, in tracing the history of architecture's relationship to film, identifies the period of German Expressionism as a crucial juncture. At this point, architecture stepped out of the background and became an active participant in the experience of the film. The most dramatic example is, of course, the radical stage sets for *The Cabinet of Dr. Caligari* (1920). Influenced by the multiperspectivalism of Cubist painting, the walls enclosing the narrative drama are "at once solid and transparent, fissured and veiled, camouflaged and endlessly disappearing, presented in a forced and distorted perspective that presses space both backward and forward, finally overwhelming the spectator's own space, incorporating it into the vortex of the whole movie."¹¹⁸ As Vidler writes, "No longer an inert background, architecture now participated in the very emotions of the film: the surroundings no longer surrounded but entered the experience as presence."¹¹⁹ In this early stage in film history, architecture animated film on the set and inside the studio, not out on the streets

¹¹⁷ I have been helped in this argument by curator Carolyn Christov-Bakargiev's insights in "An Intimate Distance Riddled with Gaps: The Art of Janet Cardiff," in *Janet Cardiff: A Survey of Works, with Georges Bures Miller* (New York: P.S.1 Contemporary Art Center, 2002): 22.

¹¹⁸ Anthony Vidler, "The Exposition of Space: Architecture and the Filmic Imaginary," *Assemblage 21* (August 1993): 47.

¹¹⁹ *Ibid.*, 48.

of the real city. Soon, however, the actual landscape of the city became the focus for many documentary and avant-garde filmmakers, as seen in the work of Ruttmann, Vertov and Kaufman. In her insistence on activating the city itself as a stage, Cardiff's walks can be seen within this "family of relations."¹²⁰

Cardiff spends months on location working on each of her walks. One of the most important parts of the process is extensive observation of the spaces in which a piece takes place. This rigorous analysis of habitual activity is essential in allowing Cardiff to use the city as an active performer in her pieces. In *Her Long Black Hair*, after she has asked you to get up and begin walking in her footsteps, Cardiff says, "Walk past the statue. And then down the stairs...all the way to the bottom. There's a woman below talking on her cell phone."¹²¹ Like the sound of the horse in the opening sequence, Cardiff cannot be sure that a woman will be there. However, she knows this a frequent activity in the park and at this specific location. Shortly after you hear this prompt, as you are walking down the stairs, a swarm of people pass you in the soundtrack. Snippets of conversation pass over your ears from front to back. Then at the bottom, sure enough, we hear a woman chatting. From her tone, and the fact that you do not hear the responses to her questions, you know she is talking on a cell phone. Here, Cardiff has set up a situation where her narrative points not only to anticipated activity in the city, but to sounds and actors in the narrative itself, further de-stabilizing our ability to distinguish between the real world in front of our eyes, surrounding our body and the virtual world transpiring in the headphones. This inter-narrative reference is then up-ended. As you continue to walk, now

¹²⁰ I use this term in the sense suggested by Thomas Elsaesser when he writes: " This means considering the history of image and sound technologies as made up less of a family tree and more of "family relations"—belonging together, but neither causally or teleologically related to each other. (Thomas Elsaesser, "The New Film History as Media Archaeology," *Cinemas* 14 (2004): 93.)

¹²¹ Audio CD accompanying Schaub's *Janet Cardiff: The Walk Book*. Track 15: 2:30 - 2:57.

facing The Pond, Cardiff directs your attention to other events that might be taking place at that moment in your vicinity: "There's a man on the bench reading the paper. Another person is taking a picture."¹²² You look for visual cues to match the suggestions from the voice. In this case, you might actually see a man with a newspaper or a person taking a picture. Cardiff turns the performance over to the flux of the city. And if at this moment these activities are not happening, the balance shifts back to the dimension of your imagination and the narrative space of Cardiff's soundtrack. Cardiff's approach to the database is to catalog a series of urban activities and the locations at which they frequently appear, and then use this scaffolding to transform people's perception of these places.

Cardiff imagines an active spectator and the construction of meaning through the interplay between moments of interpretation and everyday spatial practice. Cardiff is able to immerse listeners into a layered landscape, where both the immediate reality and her virtual narrative and soundscape are in constant dialogue. As Daniela Zyman writes, "'Now' and 'here' dissipates and coalesces with multiple periods of times and places."¹²³ The city's spaces and the depth of its times become immanent, revealed in the present moment as active performers. Cardiff's work is another form of deep mapping, capturing the same form of "herky-jerky" temporality that Heat-Moon powerfully achieves in *PrairieErth*.

Synaesthetic Urbanism

Cardiff's *Her Long Black Hair* presents a deep layering of the virtual and the real, and it

¹²² Ibid.

¹²³ Daniela Zyman, "At the Edge of the Event Horizon," in *Janet Cardiff. The Walk Book*, Köln: Verlag der Buchhandlung Walther König, 2006: 12.

also draws out the inherently synaesthetic reality of our perception. As Steven Connor writes, "The senses are multiply related; we rarely if ever apprehend the world through one sense alone. Indeed, under conditions in which any one sense predominates, closer inspection may disclose that the predominating sense is in fact being shadowed and interpreted by the other, apparently dormant senses. Indeed, we might enunciate a paradoxical principle: that the more we concentrate, or are concentrated upon one sense, the more likely it is that synaesthetic spillings and minglings may occur."¹²⁴ Echoing Ruttmann's experiment with *Weekend* in the 1930s, Cardiff focuses upon sound to enhance the listener's visual perception. Similar to Ruttmann, Cardiff recognizes the power of using a database approach to separating the sonic from visual convention to foster heightened awareness of the multidimensionality of sensory experience. Additionally, at key moments throughout *Her Long Black Hair*, Cardiff carefully draws out the other senses, further evidence of Mitchell's concepts of sensory ratios and nesting of sensations, as we also saw in Ruttmann's work. While you stand and observe *The Pond*, she asks you "to smell the air." One of the experiments she asks you to perform while standing on Central Park's Mall accentuates the haptic: "Put your finger in your mouth, now put the wet saliva on your cheek. It feels cold, bothersome, like a separate part of your face. See how long you can stand it there."¹²⁵ As you pass through the park, she points out food sellers such as the "hot dog cart" and the "peanut vendor" to evoke your sense of taste. It is Cardiff's varied approach to documentary material, used both to evoke real urban phenomena and embedded in a fictional narrative, that draws the listener's imagination and related senses into the intersensorial nature of urban space.

¹²⁴ Steven Connor, "Edison's Teeth: Touching and Hearing" (2001): 1.

¹²⁵ Script re-printed in Schaub, 104:

The shift enabled by new media, in particular the Internet, mobile devices, and wireless technologies, is the ability to literally transform the lived experience of the city into an active read/write database. While the performance of the *Arcades Project* and *Man with a Movie Camera* as urban database documentaries relies on cognitive journeys, today, a media artist such as Cardiff can craft physical cinema that takes place on the streets of the city. The documentary component of the work is no longer just the experience of recorded images and sounds, but the real-time unfolding of a city's life seen through the lens of artistic prompts. In the urban database documentary, the city itself "performs" through the cognitive and material acts of the spectator (also a performer). Interactivity is produced through a spectator's own actions, in mind and body. This work's ultimate realization does not take place through the viewing of an object, but instead, through a transformed way of being on the part of the spectator, enacted in daily urban life, outside the theater, gallery or museum space.

By focusing her creative practice on the instability of boundaries between the real world and her artistically-created soundtrack, Cardiff's work also confronts the age-old modern debate about the autonomy of art and architecture. Already in the late 19th century, we start to see the dissociation of art from its environment, as Adolf Hildebrand argues "the work of art is a total, self-contained effect, a reality in its own right as opposed to nature."¹²⁶ Cardiff suggests an alternative conception of art and architecture that is instead contingent, enacted by the dialectic between the city as a performing object and the actively perceiving subject. It is not surprising that the sonic medium is particularly effective in this critique of autonomy. As Connor writes, it is "the very principle of relativity that defines the acoustic, the insufficiency that makes it

¹²⁶ Adolf Hildebrand, "Form and Effect," in *Empathy, Form, and Space*, eds. , H.F. Mallgrave and E. Ikonomou (Santa Monica: Getty Center, 1994): 237.

impossible for the acoustic to stand alone."¹²⁷ And it is precisely also this relativity that defines the aesthetic structure of the database. It is for this reason that is not surprising that many of the urban database documentary genre's most intriguing artists are those who have experimented in separating the sonic from visual conventions, in the process, refining a structural approach to media-making that highlights the simultaneous relation and autonomy of sensory experience.

The urban database documentary in its manifold forms, ranging from montage-based audio experiments such as Ruttman's *Weekend* to textual works of deep mapping such as *PrairyErth* to CLUI's online database to Cardiff's audio walks, is a manifestation of the utopian desire for sensory estrangement. Technological transformation is one of the hallmarks of modernity, and from the beginning, a major fear has been that new technologies dull embodied sensation of the environment. Paradoxically, modernity is also defined by a utopia of using technological mediation to transform human perception in the interest of embodiment and heightened awareness. In the context of media art practice, this utopia has often been pursued through strategies of defamiliarization, fostering an aesthetic utopia of sensory estrangement. The conceptual architecture of the database, its finite yet infinite character, has proven a particularly rich form for exploring this utopian impulse, serving as a generative structure to catalog and reframe often-overlooked details. In the process, these works of sensory estrangement produce new public spaces, shared environments that highlight the instability of authoritarian notions of singular truths and perspectives on reality.

¹²⁷ Steven Connor, "The Modern Auditory I," in *Rewriting the Self: Histories from the Renaissance to the Present*, ed. Roy Porter (New York: Routledge, 1997): 220.

Section III

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Authorial Agency

Authorial Agency in the Urban Database Documentary

Famously, Dziga Vertov writes, “I am kino-eye, I am a mechanical eye. I, a machine, show you the world as only I can see it.... My path leads to the creation of a fresh perception of the world. I decipher in a new way a world unknown to you.”¹ Certainly, Vertov fetishized technology. *Man with a Movie Camera* can, in a sense, be read as an ode to the power of mechanical reproduction. But for me, this aspect of fetishization is far outstripped by the underlying recognition that the real significance of the new media recording technologies of the late 19th century was their potential to create a “fresh perception of the world.” And while Vertov heralds the machine, such a work as *Man with a Movie Camera* explicitly transforms the human recordist and editor — the machine operators — into the heroes. At the center is a humanist vision of authorial agency.

In this final section, I change tone and shift perspective, as I now speak with the voice of myself as media artist. This move aims to tease out a crucial dimension of the urban database documentary, a thread latent in the previous chapters — the question of authorship. At different junctures, I have worked to hopefully convince you that there is such a genre as the urban database documentary, and that it is a genre made up of works authored by artists. This is why I so belabor the point of the difference between algorithm and automation, as I would like to disentangle the act of designing a rule set from the act of carrying it out. The first, I argue, is the exclusive provenance of the human creator. The second, the execution of a rule set, can be performed by the original author, a extended community or a machine, each to different results. These multiple dimensions of authorship are integral characteristics of the urban database

¹ Dziga Vertov, *Kino-Eye: The Writings of Dziga Vertov*, (Berkeley: University of California Press, 1984): 18.

documentary genre, and the evolution of technology over the past century has directly shaped the multiple forms of authorship exhibited within the genre.

All of this might seem pedantic or obvious, but let me explain my purpose a little more. Today's media culture is dominated by the notion that suddenly everyone can be an author, a filmmaker, an artist, etc. It is the great age of creative populism. Repeated ad infinitum is the fear that the professional's province of authorial expertise is a thing of the past. The adage goes that the journalist of the future is anyone who blogs or tweets, and the only role for a professional is as a curator. There is no longer need for "original content." The filmmaker of the future is anyone who has a cell phone and posts their videos to YouTube. Everyone can take beautiful photos with Instagram. There is such a thing as a "hive mind" and its glorious manifestation is the networked knowledge of Wikipedia.

What I find missing in all of this discussion is attention to the rise of new forms of authorship, the authorship of frameworks, rule sets — i.e. database structures that are the generative backbones of many creative works. The revolution in authorship today is not so black and white. Wikipedia is not a simple, anarchic, level playing field. It is highly structured, rigorously curated and edited. It is intensely collaborative and radically open in comparison to knowledge production models of the past, but there is fundamentally hierarchy. While it is true that more people than ever have the ability to express themselves through media and make their work accessible to millions through the web, this expression always takes place within authored constraints. A photo on Facebook is never just a photo — it is necessarily that photo enmeshed within the logic of the Facebook platform, a living, breathing, data-driven behemoth that graphs any instance of social interaction in relation to others across the network. And Facebook and other platforms are made by people, inflected with very specific social, political and aesthetic

visions. Moreover, the history of artists authoring frameworks is not exclusive to recent decades. Since at least the early 20th century, a central concern of a mode of media art practice has been the design of aesthetic structures, such as the temporal, topical and multisensorial dynamics of city symphony films and radio montages that we have discussed.

To address this issue of authorship, it seems appropriate to speak as an author of urban database documentary projects. I hope to elucidate some of nuances of how authorship is changing, and how the history of the genre can help to understand these changes. I will focus on four case studies, each exemplifying a distinct form of collaborative authorship. For each, the modes and layers of authorship are distinct and represent important dimensions of historical and contemporary urban database documentary practice.

The first, *The Colors of Berlin*, has the characteristics of classic authorial conventions: there were three of us that designed a framework, which we then used to guide on our own work, and all of the aesthetic and editorial decisions were made by ourselves. It is an “open work” in Eco’s sense, in that it is a framework that offers new possibilities each time for unique spectatorial interpretation, but it is closed in a practical sense, a complete project that bears the imprint of consistent vision from the database design through each item in the collection. The second, *Yellow Arrow*, marks a transition into a separation of authorial layers between the platform and its content. The framework and its parameters of participation was designed and developed by a small team; a global community followed the specific rules of the system and generated the content. Basically, there was a strict division between the platform authors and the authors of the work inside the platform. The third case is *Mapping Main Street*. Similar to *Yellow Arrow*, a small group authored the framework, which was an open system allowing for audience participation. However, in contrast to *Yellow Arrow*, the platform’s frame is editorially narrow,

and the core team that authored the platform, also produced content. *Mapping Main Street*, in this way, represents a uniquely hybrid mode of authorship, mixing professional and amateur. The last case study is *Zeega*, a nascent system that allows anyone to author open platforms within the larger constraints of an overarching framework. While *Mapping Main Street* and *Yellow Arrow* demonstrate an authorial model with two layers, albeit each with distinct constraints, *Zeega* introduces the prospect of a third layer of authorial engagement. Those that participate within the constraints of the framework created by the primary authors have the ability to themselves author frameworks that invite other authors to participate within their constraints.

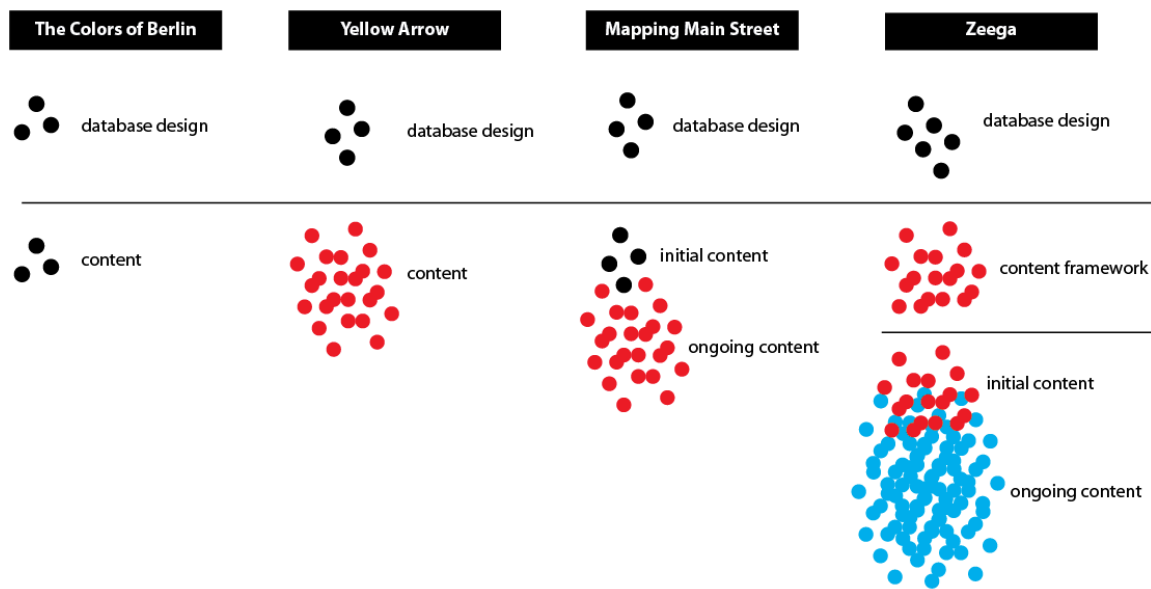


Figure 9. Diagram of authorial dimensions in media art works

Chapter 5

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Database Design and Layers of Authorial Agency

Challenging Urban Imaginaries in *The Colors of Berlin*

In *Invisible Cities*, Italo Calvino presents this fictional conversation between Marco Polo and Kublai Khan:

Marco Polo describes a bridge, stone by stone. "But which is the stone that supports the bridge?" Kublai Khan asks. "The bridge is not supported by one stone or another," Marco answers, "but by the line of the arch that they form." Kublai Khan remains silent, reflecting. Then he adds: "Why do you speak to me of the stones? It is only the arch that matters to me." Polo answers: "Without stones there is no arch."²

Choosing to focus upon the traces of everyday life in the city is akin to paying attention to all the stones that constitute an arch. A city is not constituted by a sum of its monuments, a collection of its "highlights" but by the combination of all of its details. *The Colors of Berlin* started with an ambition to generate such a sensitivity to the city of Berlin.

Operating in the border zones between contemporary art, urban design and ethnographic research, Stadtblind was an independent collective dedicated to the investigation and transformation of urban life. Stadtblind was founded in 2002 in Berlin by myself and German architects and planners Philipp Schwarz and Celia Di Pauli. *The Colors of Berlin* was our first project, an exhibition consisting of over 1,000 photographs and maps, along with an experimental guidebook to be used on the city's streets. The project arose in opposition to the suffocating images of reconstruction and historical memory that dominated the city. Targeting the lacunae in the representation and perception of the city, we developed the project under the premise: "Too often Berlin is seen blindly [*Zu oft wird Berlin blind betrachtet*]."

The project is based on a re-invention of two classic design tools: the Pantone color-fan and commercial paint chips (the little strips of color samples you receive when you go to a paint store). We modified the color-fan to create a structure that contains five interrelated elements:

² Italo Calvino, *Invisible Cities*, translated by William Weaver (New York: A Harvest Book, 1972): 82.

color blocks, an image, a theme, a text, and a map. This aesthetic structure, this database design, then became the framework that guided our content production. Like the *Arcades Project*, the conceptual architecture of the database provided a generative framework that is ultimately focused upon transforming the perceptual experience of physical space, responding to a utopian desire of sensory estrangement.

The front pages of the guide show an image, with two colors blocks below and a single, poetic word at the top. The color tones are drawn directly from the pictures themselves and are intended to intensify and complicate the images, aiding viewers to see these often-mundane objects, scenes, and spaces with new eyes and feelings. The choice of colors is not scientific nor algorithmic, but in every instance intensely subjective, foregrounding the viewer's agency in constructing meaning and perception in the city. For example, one of the most suggestive details of a city that distinguishes one place from another is pavement. In Berlin, many of the city's sidewalks are large flagstones with small granite blocks meticulously placed by hand to form a unique form of interwoven stonework. Ubiquitous, the unusual character of this pavement is often never noticed by residents or visitors. However, this everyday element takes on a new life and is perceived differently through the structure of *The Colors of Berlin*. A photograph of the sidewalk is combined with two blocks of different shades of grey. Through this design framework, the seemingly mundane image is re-presented and made available for new interpretations. This same strategy works to draw out the details in all forms of imagery: whether façades of buildings, strange vehicles parked on a city's street, urban furniture like trash cans, crowds of people in major public spaces, or handwritten signs in storefront windows.

On the back of each page is a zoomed in map, along with a quotation. The text selection echoes Benjamin's wide explorations of multiple genres and voices. There are quotations from

such classic Berlin-commentators as August Endell and Wim Wenders, citations from the daily newspapers the *Berliner Morgenpost* and *die tageszeitung*, statistical information, and personal observations. In an age when a central form of communication is the rapid consumption of images, we find the insertion of texts necessary to slow the viewer/reader. The exact location where the picture was taken is marked with a black circle on a cutout from a Berlin map. This localization is essential to our documentary process, lending every image a crucial specificity and allowing readers to travel to that precise location themselves.

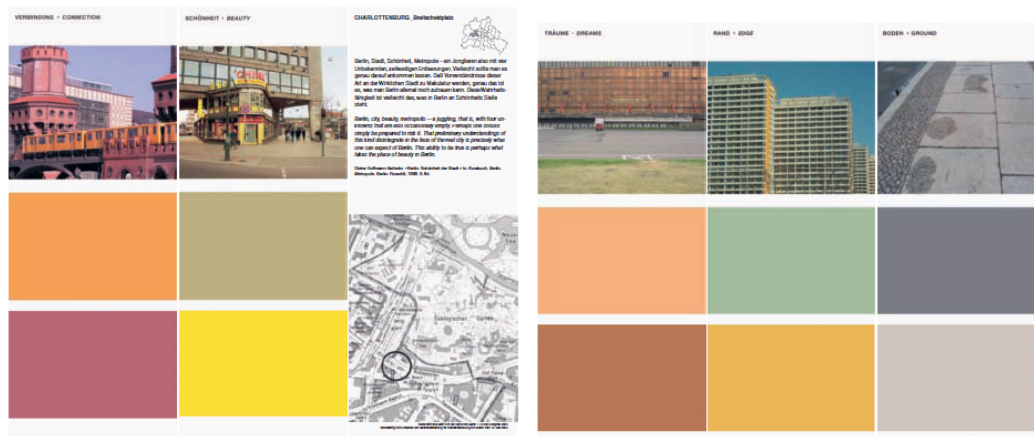


Figure 10. The Colors of Berlin

The Colors of Berlin engages both the desires of sensory estrangement and kaleidoscopic perception. One of project's primary reference points is the tourist industry. Tourism in Berlin feeds off the two dominant urban imaginaries: Berlin as construction site and Berlin as historical landscape. Touristic modes of representation foreground the panoramic over the kaleidoscopic. A touristic image of a city is classically static, fixed, attached to a stable vision of a place's past, present and future. The touristic image of a city is void of the dynamic tension between an overarching view and the desire to retain the integrity of individual fragments. The power of tourism rests not only in the experience of a city that is transported to visitors. The tourist

industry and all of its apparatuses also have a tremendous impact upon the residents of a city. The touristic approach to a city tends to reduce a place to a fixed collection of isolated monuments and districts, blending out everything in-between. In the interest of increasing the touristic attractiveness of a city, planning policy attempts to develop a place that fits the dominant touristic image and focuses upon blockbuster events and monumental building projects. It is precisely these chosen "highlights" that receive the attention and investment of the city planning office. That which seemingly does not fit into the touristic image of the city is, for all practical purposes, forgotten.

Stadtblind's response to this relationship between tourism and urban development was to adopt the mass-oriented strategies and language of the tourist industry, but to focus upon those places outside of the normal tourist program. Our aim was to open up the static database of the city's image. We see *The Colors of Berlin* as a critical highjacking of the guidebook medium. Instead of being confronted with the classic tourist sites and a map guiding you to them, the seemingly banal scenes and details of lesser-known inner-city districts and the vast periphery are mapped out for potential tours. The aim of the project is to distance viewers from that which is familiar, to re-frame the familiar in such a way that it becomes unfamiliar, fresh, and worthy of attention. The colors are the core component of this mixed-media framework, enabling this defamiliarization. It is precisely the everyday aspects of our lives that are most often overlooked; and it is precisely these everyday aspects that most constitute our lived experience of the city.

Over the course of a year, with the project's structure in mind, Philipp, Celia and I spanned out across the city, walking endless blocks, recording thousands of images. Weekly, we would reconvene to review our photographs, selecting the best. We would then translate them into the database format of the project, using Photoshop to select two color pairings, detailing the

image's location on a map and assigning the image a theme. In conjunction with our photography in the city's streets, we built a collection of quotations. In the final assembly of color cards for each exhibition, we would connect a quotation to an appropriate image. Over the course of the project, quotations migrated from image to image, finally settling into their ultimately fixed relationship in the work's final published form. The project represents an authorial process where the database designers are the same people as those that carry out the content production within the database framework. It is a model akin to the *Arcades Project*, where Benjamin constructed the scaffolding that structured his own investigations. But it is distinct from *ABCDF*, where the dictionary design provides the structure for the contribution of others.

Yellow Arrow and the City as Read/Write Database

While artistic methods using the database as conceptual architecture manifested before the invention of computers, the proliferation of networked computation has dramatically altered the prospects for database documentary practices. As Victoria Vesna writes, "Artists working with computer technology have to think through the invisible backbone of databases and navigation through information as the driving aesthetic of the project."³

This implies a shift in the modes of artistic authorship. Vesna writes, "Ultimately, artists working with digital media necessarily work in collaborative groups and are context providers. Indeed, the development of context in the age of information overload is the art of the day."⁴ For Benjamin, it is the context and method of the arcades as material and conceptual anchors for a

³ Victoria Vesna, "Introduction," in *Database Aesthetics: Art in the Age of Information Overflow*, edited by Victoria Vesna, (Minneapolis: University of Minnesota Press, 2008): x.

⁴ Ibid., xiii.

new historical materialism that enables the individual entries to accumulate meaning. Historically, the artist was understood to make unique works within a particular medium. And these works often addressed limited audiences. With the advent of mechanical recording technologies, images began to circulate more widely than ever before. As Benjamin writes, "Now the reflected image has become separable, transportable. And where is it transported? Before the public."⁵ Again, film (new media at the time) shares much with architecture. Benjamin writes, "Painting simply is in no position to present an object for simultaneous collective experience, as it was possible for architecture."⁶ In addition to changes in reproduction, historically the level of interface did not exist — a painting was simply a painting. With new media, the definition of a work itself is reconfigured as content and interface become distinct. It becomes possible to not only reproduce works infinitely, but to create different interfaces to the same material. Moreover, authorship changes, as new media enable artists to author frameworks that give context for other authors to create content. In the case of *The Colors of Berlin*, these two layers, the layer of database authors and the layer of content producers, were made up of the same people. In the case of *Yellow Arrow*, a small team designed a database structure and an interface for a community of others to create content.

Yellow Arrow was created by myself, Brian House, Christopher Allen and Michael Counts in 2004. The project aimed to critically intervene in the space between physical and virtual experience. People got stickers in the shape of yellow arrows; printed on each one is a unique alphanumeric code and telephone number. Participants were invited to place the sticker anywhere they choose. Then, by sending a text-message with the sticker's code to the telephone

⁵ Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Third Version," in *Selected Writings: Volume 4*, edited by Howard Eiland and Michael Jennings (Cambridge: Harvard University Press, 2002): 741.

⁶ Ibid., 745.

number and including an original statement about the location, the person was able to attach a message to that actual place. When someone else saw the sticker and sent a text with the code to the phone number, he or she received the person's original message. The screen-based dimension came in later, as users were able to upload photographs of their arrows and plot their exact locations on an online map.

In effect, each Yellow Arrow sticker serves to transform an instance of the urban into a database entry. The arrows are tools for indexing the complex interplay between subjective experience and physical space, each entry a recording or prompt that can now be made accessible to others through a real-world navigational system facilitated by mobile phones and wireless networks. Radically democratic, *Yellow Arrow* provided a context through which anyone can add and access the database of subjective urban experiences, transforming the city into a deep map.

Many of my favorite Yellow Arrows are the ones with immediate imperatives to interact with the city, such as one placed by 'cook' in Times Square: "Stand facing this arrow and you'll hear the best urban symphony of your life." For someone to encounter this sticker in the city, then to receive this message and respond instigates a transformed sensorial experience. The limitations of text-messaging (no images, no sounds, only 140 characters) allow the visual and sonic environment of the city to take precedence. The mobile phone screen only serves as a brief prompt to look and listen in a different way.

This approach draws upon the legacy of the Situationists, in particular, their emphasis on critiquing the presumed objectivity of the map, and instigating play and experimentation in the physical environment. In the first issue of *Internationale Situationniste*, Debord calls for a "unitary urbanism" that is "the combined use of art and technology leading to the integrated

construction of an environment dynamically linked to behavioural experiments.”⁷ This description could just as well serve as a description for *Yellow Arrow*. The city readily becomes a psychogeographical⁸ laboratory when one takes up the set of tools the platform provides. The world of blurred fact and fiction created by *Yellow Arrow* supplants the supposed objectivity of the database, transforming the city into a collectively authored subjective database and a new sphere for embodied action.

Yellow Arrow’s authorial structure models conventions of software development more so than traditional artistic practice. In effect, *Yellow Arrow* is a software application with a fixed feature set. Any user with the appropriate technology can use the software within the constraints we set up. But while the software bears the imprint of its authors, the authors do not dictate the use of the software. Some people placed yellow arrow stickers in the ways we imagined, in the spirit of Situationism and with an eye towards countering corporate messaging in the city. Others used the platform for purely personal purposes, placing stickers on their luggage or laptops. Others adopted the tool for promoting their business. Participants in the project, however, could not adopt the platform to author their own participatory works, to design their own database documentaries within the overarching frame. There was no ability to set up a group, to aggregate arrows with common tags on a page or other features that would facilitate such an additional layer of authorial production. The core constraint of *Yellow Arrow*’s database design is the sticker’s unique ID, and the number of IDs was theoretically infinite. For this reason, *Yellow Arrow* is a useful example of a form of urban database documentary that is driven by an artistic

⁷ *Internationale Situationniste* #1, June 1958.

⁸ “Psychogeography” is a word that in past years has once again gained attention from artists internationally. Originally coined by Guy Debord in 1955 in “Introduction to a Critique of Urban Geography,” it was described as “the study of specific effects of the geographical environment, consciously organised or not, on the emotions and behaviour of individuals.”

team's design of an open database that is only limited by the mathematical constraints of generating distinct alphanumeric combinations.

Mapping Main Street

Whereas *Yellow Arrow* was concerned with making all places and experiences possible entries in a database, *Mapping Main Street* uses a fixed database to critique popular political rhetoric and open alternative paths for exploring overlooked space across the American landscape. The project was created by myself, Kara Oehler, James Burns and Ann Heppermann in 2009, and serves as an example of third mode of authorial production, where the database designers establish a finite framework for content creation and participate themselves as the initial content creators, setting the stage for open contribution.

Since the publication of Sinclair Lewis's book *Main Street* in 1920, Main Street has been a highly contested, shifting metaphor for what constitutes traditional American values and the "average" American experience. Since the Great Depression through today, Main Street has been deployed by the left as a form of populist revolt against Wall Street's monied interests. On the right, it has been a tool for provoking anger at a perceived elitism of Washington politicians and a wedge for instigating the culture wars. The urban imaginary of Main Street evokes the 19th century small town center, the image commodified by Walt Disney as Main Street, USA. However, the term's urban history ranges as far back 17th century New England villages and Spanish presidios and missions. And today, Main Street is a national movement for historic preservation and the revitalization of decaying downtowns, as a well as an aesthetic moniker for New Urbanist design and exclusive lifestyle center developments. The built environment of Main Street, constituted by the physical forms that dot its thousands of miles of streets and the

everyday practices of its millions of inhabitants, tells a story that constantly complicates its political mythology and urban imaginary. Not just historic downtowns, Main Streets are suburban roads, blocks of 1950s strip malls, and the food courts on America's military bases throughout the world. Read together, these corridors of commerce and community present a highly variegated picture of America's past, present, and future political and urban history.

When politicians, the media, and urban boosters mention Main Street, they are often only talking about one mythical people and place. Originally conceived in the context of the 2008 election's rampant rhetoric of "Main Street vs. Wall Street," *Mapping Main Street* is a collaborative database documentary that aims to unsettle assumptions by recording photos, videos and stories on streets named Main across the country.

There are thousands of streets named Main in all 50 states. From New York City to Omaha, Kansas City to San Francisco, Galesburg, Ill. to Houston, Wasilla to Scranton. Some of the streets are historic commercial centers, emblematic of the imaginary evoked in Lewis's novel including blocks of brick buildings, a hardware store, a pharmacy, and a soda fountain. However, many them are cul-de-sacs in mid-century suburban developments (e.g. Honolulu), primary strips for prostitution (e.g. Chattanooga) or the central arteries of military-industrial complexes (e.g. Norfolk). While Main Street typically conjures up small town America, it is fundamentally urban, as well. New York City has five Main Streets, one in each borough. In Queens, Main Street is the center of Flushing's Chinatown. Los Angeles has one of the longest Main Streets in the country, starting in downtown just above the LA river, passing through skid row and down into South Central before reaching Long Beach.

Instead of accepting the abstract unity of Main Street as a political constituency, a complex montage of individual and collective identities emerges through the stories of those

people that live and work on America's actual Main Streets. The fixed database of 10,466 streets becomes generative — by focusing upon this single street name, an infinite heterogeneity is able to be recorded, while maintaining a common reference. *Mapping Main Street* exploits the urban database documentary's bounded yet boundless nature.

We initiated the project by traveling on a 15,000 mile road trip, visiting as many Main Streets as possible. The purpose of the trip was so that we could ourselves perform the rule set we had imagined, in much the same way that Stadtblind carried out the documentation to fill in the database framework we created for *The Colors of Berlin*. In addition to short visits to different Main Streets around the country, we also spent longer periods of time creating in-depth audio documentaries about select streets. These highly-produced, professionally-crafted works aired on National Public Radio. In this way, *Mapping Main Street* poses a contrast to *Yellow Arrow*. In the latter, there was a strict line separating the authors of the database framework and content production. In *Mapping Main Street*, we crossed this line, but also invited others to participate, a notable distinction from the authorial mode of *The Colors of Berlin*. And others did participate. Since *Mapping Main Street* started in 2009, over 823 streets have documented. We ourselves only photographed 85 streets. Amy Fichter, an artist in western Wisconsin heard about the project on the radio, and has now been to over 40 different Main Streets in her region, places that she previously did not know. She has recorded an extensive series of captivating images of forgotten objects, varied faces and haunting landscapes. Fichter says, "Through working on this project I have learned more about who my neighbors are, what they care about, and how they identify themselves. I have learned about the history of these people and places."

From an artist's perspective, it is people like Amy that make these forms of authorial experimentation exciting. It is distinct creative challenge to not only create media one's self that

transforms the perception of a place, but to also design a structure that allows for the emergence of the unexpected. A distinctive aesthetic character of work such as *Yellow Arrow* and *Mapping Main Street* is that they are ever-evolving; they are dynamic systems in a very little sense.

However, this dimension of uncertainty does not mean that they are authorless. In the same way that Wikipedia not a totally anarchic structure, despite popular belief to the contrary, these projects and others in the genre have multiple layers of authorship, including an initial database framework that crucially informs the aesthetic character of the work as a whole. Historic pioneers of urban database documentary such as Ruttmann and Vertov certainly sensed this generative potential of designing dynamic systems, but the Internet fundamentally changes the viability of such modes of artistic production.

In addition to transforming perceptions in physical space, *Mapping Main Street* is also an experiment in new forms of online database documentary. In the age of information overflow, a common online experience is to feel overwhelmed by so many possible decisions — which button to click, which story to read, which video to watch. The level of distraction is so high it is often impossible to conscientiously experience a crafted work of online media art. In designing the online component of *Mapping Main Street*, we focused upon creating an immersive user experience that allows visitors to easily follow routes without having to make a lot of decisions. By simply clicking once to start, a user is taken on a journey through photos, videos, and sound pieces created by people across the country. However, no journey is ever static. Every visit to the website effectively is a new performance of the work, as new images and videos are contributed and automatically integrated into the site's routes. But not all media is treated equally. The short documentary pieces we produced through extensive investigation at three Main Streets, along with other selected features, frequently appear interspersed between the submissions of the

general citizenry. Whereas the traditional cinematic urban documentary was materially fixed after editing, the new media documentary is an ever-evolving work. The role of independent artists shifts from exclusively crafting their own media to situating their sculpted pieces through specific constraints that contextualize dynamic streams of content automatically pulled and filtered from multiple sources.

From Dziga to Zeega

My most recent collaborative work is the creation of Zeega, an open-source platform which, among many possible uses, aims to make it easy for anyone to author works of urban database documentary. As a final case study in this series of reflections on modes of authorship, Zeega presents another form. As distinct from the previous examples, Zeega itself is not an urban database documentary, but it is a set of tools intentionally designed to facilitate the work of artists in the genre. As such, the layers of authorship are now threefold. There is the initial layer of the core team that has designed Zeega's database and authoring interface, myself, Kara Oehler, James Burns, Joseph Bergen, Lindsey Wagner and Luís Filipe Brandão. This layer is similar to the small groups behind the authorship of *The Colors of Berlin*, *Yellow Arrow* and *Mapping Main Street* frameworks. Flowing from this layer is a community of authors that use Zeega to set up projects around specific topics and geographies, content frameworks similar to the structure of Mapping Main Street. Often times the authors that set up these frameworks using Zeega are also the initial content producers, but the projects themselves are open to broader community contribution. In this way, there is a third authorial layer, the group of people that participate in projects that are authored by others within Zeega.

Zeega is named after Dziga Vertov, an intentional misspelling of his first name. In addition to experimenting with a new model of authorial production, the project playfully engages enfoldings of media history. The conceptual model and vocabulary of the platform intentionally echoes the logic of early cinema. The atomic unit of a Zeega project is a frame. This ontology is distinct from digital video editing systems such as Final Cut Pro, where the base unit is the clip. The video clip, as opposed to the frame, proposes a smoothness of transition. Video glosses over what Vertov illustrates in detail within the editing scenes of *Man with a Movie Camera*, where we see the cinema's first machinations, still frames brought to life, into motion, through projection in a sequence over time. In Zeega, as in celluloid cinema, the level above the frame is the sequence, a linear ordering of frames. An author can easily add a single image to a Zeega frame; add another frame, and add an image; and so on. A simple sequence made up of frames, each with a single image. In this way, an author can reconstruct a film strip, each frame a negative cell. For example, I had the individual frames of a 16mm print of *Man with a Movie Camera* converted into digital images, which I then turned into a sequence of frames in Zeega.

But a frame in Zeega must not only consist of still images. A frame may also contain a video or sound clip. In this way, the conceptual model of the Zeega frame enfolds digital video within itself. And unlike its celluloid ancestor, a Zeega sequence gives authors the ability to let users make choices in their experience of a work.

In the context of interactive media, time is complicated. Unlike linear media, where a final work has a set duration and an author has control over the timing of each moment, the temporality of interactive work is always different depending on how a specific user navigates a

project⁹. In the context of Zeega, an author can determine whether or not a frame has a specific duration or if a viewer controls the duration. Moreover, an author can transform a certain portion of a frame into a link to another frame, thus enabling authors to construct their own navigation system through a collection of media.

A final work authored in Zeega is called a project. Authors can share their projects on the Zeega website, or by embedding a project on other sites, in the same way YouTube has popularized the embedding of videos across the web. Unlike YouTube, however, when a viewer begins playing a Zeega project, it automatically opens into a full screen, thus removing all navigation and information that an author has not intentionally chosen to be a part of their project. There are many reasons for doing this, but from the perspective of authorial agency under discussion here, the most salient purpose is to turn over the keys of experience design to authors themselves. As mentioned earlier, a photograph viewed on Facebook is always a photograph on Facebook — enmeshed in the aesthetics of its navigational design and subject to its advertising logics. With Zeega, authors have the ability to create their own online universes, producing works that can live anywhere online, but that when viewed, override the authorial intents of the web's dominant platforms.

All media used within Zeega is hosted on servers elsewhere. A video may reside on YouTube. I've placed the individual photographic cells of my *Man with a Movie Camera* remake on Dropbox. An author recently produced a work investigating Boston's media history, layering photographs from Flickr, uploaded by the MIT Library, on top of panoramas drawn dynamically from Google. Authors bring media into the Zeega system through a simple plugin to their

⁹ I recognize that much work in film theory has shown the agency of the spectator vis-à-vis a projected work. While acknowledging these theoretical insights, I sustain that the filmmaker has an undeniable authorial agency in assembling a work of cinema, an agency fundamentally distinct from a work of interactive media.

browser. When viewing an image on Flickr, watching a video on YouTube, or listening to a sound on SoundCloud, an author can click the plugin button, which triggers a call to the media host's services, identifies the information about the file being viewed, and then allows the author to add that file to their personal Zeega database. Using this plugin almost feels pirating. But it's legal. Not all media can be accessed for use — only those items that are public on their source websites. And when media is re-contextualized within a Zeega project, at all times there is a visible citation that provides a link back to the original source.

In its most basic uses, Zeega proposes a model of authorial agency a la Thom Andersen's *Los Angeles Plays Itself*. The web becomes a media archive, accessible for archaeological excavation. Authors can use Zeega to build their own databases out of the sediments of society's history of mediation, and then re-contextualize this material on their own terms.

In addition to this authorial structure, Zeega also goes a step further. A Zeega author can also define a topic, and then invite other authors to contribute media related to that topic. This is, of course, the authorial structure of *Mapping Main Street*, or the *Highrise* project directed by Katerina Cizek and the National Film Board of Canada discussed in Chapter 1. However, the important distinction in terms of authorship, is that in the case of a topic-based project using Zeega, there are now three operative layers. There are the initial database designers, myself and colleagues; there is the author of the topic-based work; and then there are the authors that create work within the topic-based structure that has been set up in Zeega. Without programming, the author in this second layer, has effectively designed a database framework that becomes generative. The purpose of making such a layering possible is quite simply an aspiration to make it easier for more and more people to author generative frameworks, to expand the pool of artists that can experiment with the urban database documentary genre.

Towards a Critical Urban Media Arts

The Internet has brought about tremendous change. However, the Internet has not dramatically changed the underlying utopian desires that drive urban database documentary practice. The utopian desire to achieve a kaleidoscopic perspective remains incredibly powerful, as artists continue to strive for a total view of a city while knowing its impossibility and attempting to preserve the integrity of a place's individual fragments. In much the same way that the dramatic growth of the metropolis in the late 19th century triggered feelings of wild disorientation, stimulating such a kaleidoscopic desire, the overwhelming proliferation of digital information motivates the pursuit of new forms of synthesizing a whole and its parts. Similarly, the expansion of industrial technology in the late 19th century engendered fears of dehumanization, a concern paradoxically confronted by many artists with a turn to media technologies themselves as means of fostering heightened awareness of one's surroundings and subjectivity. Again, this utopian impulse for sensory estrangement is alive and well, manifested in new forms that creatively use the ever-greater networking of physical spaces and location-specific mobile devices.

The urban imaginary, that "cognitive and somatic image which we carry within us of the places where we live, work and play,"¹⁰ has only become a greater focus for the genre's practitioners. In contrast to some critics' fears that the web would lead to the dissolution of urban environments, we are witnessing increasing interweaving of the digital and the physical.

While these utopian impulses and attention to uncovering new perspectives on place have persisted, albeit always in historically contingent and specific forms, the dynamics of authorship

¹⁰ Andreas Huyssen, "Introduction," in *Other Cities, Other Worlds: Urban Imaginaries in a Globalizing World* (Duke UP, 2008): 3.

have changed dramatically. At stake in this changing landscape of authorship are changes in artistic agency. One the greatest misconceptions of our times is that there are no longer authorial voices, that culturally we are simply awash in an ocean of reruns and the flattened voices of “everybuddy.”¹¹ It is my contention that authorship is alive and well. It simply has taken on myriad new forms. While intimated in early periods of modernity, we are witnessing a rapid rise in artists designing dynamic systems that set constraints while enabling diverse modes of participation and experience.

I have intentionally described these modes of authorship with the metaphor of layers. In contrast to a flattened, network model, the notion of layers implies hierarchies. Too often, today, hierarchy is inherently looked down upon. However, ignoring the real facts of hierarchy is a mistake. That Wikipedia is governed by an editorial framework with layers of hierarchy is a good thing. In fact, it is precisely the coupling of a radically low barrier to entry with such an attention to authorial rigor that has made Wikipedia a lasting institution and its social value so great. Contemporary society is enveloped by more and more digital platforms that structure artistic work. The use of the Internet as a medium is increasingly brokered by a small coterie of entities and supported by a business model reliant on advertising. We live in an age of democratizing rhetoric, but there are real risks to the current trajectory.

While Vertov did not have access to a medium like the web, a medium that that can allow a democratization in the authoring of frameworks, he was well aware of the significance such a moment might hold. The reflective thread of *Man with a Movie Camera*, the methodical uncovering of the processes and artifice behind the new medium of film, had a clear political purpose: instead of simply producing propaganda that communicated the party line, Vertov went

¹¹ Here I am referring to Andy Merrifield’s January 2012 article in *Harper’s*, “Here comes everybuddy.”

a step further, aiming to expose the makings of media in order to inspire a critical subjectivity and agency in his ideal new Soviet subject. By exposing authorship, Vertov empowers greater agency. Today, this means attending to the authorial voices behind the most powerful platforms, fostering critical discourse about such topics as the aesthetic and cultural logic of Facebook's paradigm of interactive design or the biases constructed by human engineers that power Google's search algorithm. And of equal, if not greater importance, is a movement to enable more and more people to author their own platforms, on their own terms, in the aesthetic and social forms of their choice. Per Barthes, a new reader may have been birthed, an active agent not bound to the whims of the author. But the author today is far from dead, as the multiplicity of layers of authorship have expanded in dramatically new forms.

In different ways, each project discussed throughout this dissertation insists upon fostering a critical subjectivity in its audience, whether vis-à-vis the role of capitalism in shaping modernity, the biases of city planners or the myopia of accepted political rhetoric. These works are critical in that they insist upon an urban media arts practice that explicitly challenges the commodification of everyday life. In their 1999 book *The Experience Economy*, Joseph Pine and James Gilmore promote this terrifying forecast:

The history of economic progress consists of charging a fee for what once was free. In the full-fledged experience economy, instead of relying purely on our own wherewithal to experience the new and wondrous—as has been done for ages—we will increasingly pay companies to stage experiences for us, just as we now pay companies for services once delivered ourselves, goods we once made ourselves, and commodities we once extracted ourselves.¹²

One of the products of the explosion of the Internet and the widespread adoption of mobile phones has been an ever-increasing commercialization of all hours and dimensions of human experience. Everyday life is now fundamentally mediated, and thus networked media, aesthetics,

¹² Joseph Pine and James Gilmore, *The Experience Economy* (Cambridge: Harvard Business School Press, 1999): 61.

and perception form a key battlefield of contemporary politics.

To explore artistic avenues opened by new technologies does not mean we have to embrace the use-assumptions of the technology's producers. Rather, we can work at developing our own tools that may serve to further connect us to our history and enable our own actions. The history and present of urban database documentary shows the prospects for media arts practices that utilize technology and the conceptual architecture of the database to transform sensory experience and foster critical subjectivities in physical space.

Appendices

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- Rien que les heures*. (Nothing but the Hours). *Dir.* Alberto Cavalcanti, *Cam.* James E. Rogers, *Prod.* Néo Film (France), *Release* 1926
- Shestaia Chast Mira* (A Sixth Part of the World). *Dir.* Dziga Vertov, *Ass. Dir.* Elizaveta Svivlova, *Cam.* Mikhail Kaufman, *Prod.* Goskino Kultkino (USSR), *Release* 1926.
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- Odinnadtsatyi* (The Eleventh Year). *Dir.* Dziga Vertov, *Cam.* Mikhail Kaufman, *Ass.* Elizaveta Svivlova, *Prod.* VUFKU (USSR), *Release* 1928.
- De Brug*. (The Bridge). *Dir.* Joris Ivens, *Prod.* CAPI (Netherlands), *Release* 1928
- Chelovek s Kinoapparatom* (Man with a Movie Camera). *Dir.* Dziga Vertov, *Cam.* Mikhail Kaufman, *Ass.* Elizaveta Svivlova, *Prod.* VUFKU (USSR), *Release* 1929.
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- City of Contrasts*. *Dir.* Irving Browning, *Prod.* USA, *Release* 1931
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The City. Dir. Ralph Steiner and Willard van Dyke, Prod. USA, Release 1939.

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The Climate of New York. Dir. Rudy Burckhardt, Prod. USA, Release 1948.

Under the Brooklyn Bridge. Dir. Rudy Burckhardt, Prod. USA, Release 1953.

N.Y., N.Y. Dir. Francis Thompson, Prod. USA, Release 1957.

Go! Go! Go!. Dir. Marie Menken, Prod. USA, Release 1964.

Cassis. Dir. Jonas Mekas, Prod. USA, Release 1966.

Oganism. Dir. Hilary Harris, Prod. USA, Release 1975.

New York Portrait, Part I. Dir. Peter Hutton, Prod. USA, Release 1976.

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